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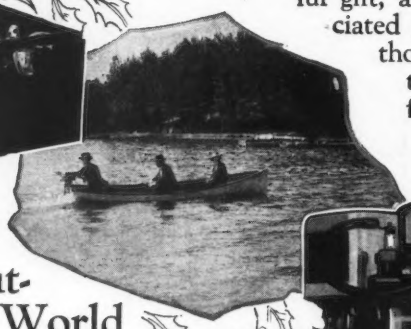

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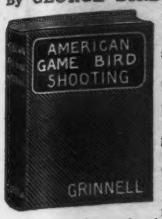

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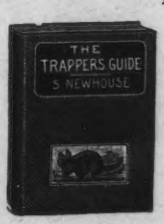

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ROD AND GUN

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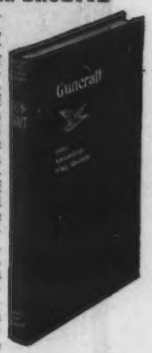
GUNCRAFT

By WM. A. BRUETTE



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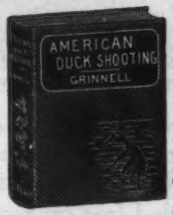
American Duck Shooting

By GEORGE BIRD GRINNELL



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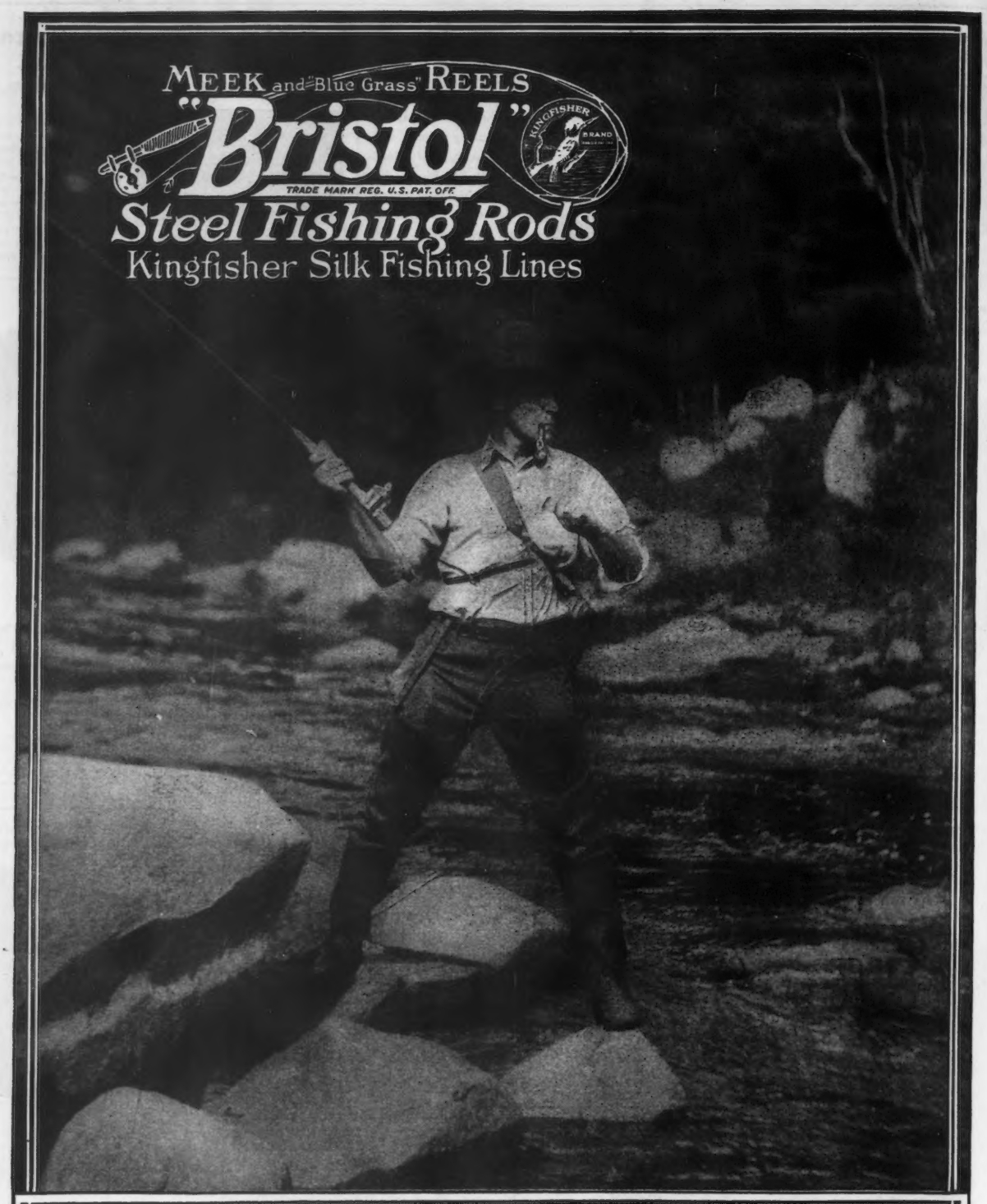

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Vol. XCII DECEMBER, 1922 No. 12

DUCKS IN OLD RICE FIELDS

SPORT ON THE WIDE MARSHES OF MERRY BELL PLANTATION WHEN WILD-FOWL CUP THEIR WINGS AND DROP TO STOOL

By ROLAND CLARK
Illustrations by the Author

WE stood on the porch of an old, old house; a house of mellow-toned bricks and high set dormers. Roses bloomed at the lattices, reaching up to spread their tracery along the low hung eaves. Flanked by giant live oaks and patriarchal cedars, its open doors suggesting an ocean of hospitality and good cheer, it stood high above the surrounding marsh.

A wondrous domain lay at our feet. Here the lazy Cooper wound its way between willow-fringed banks, to lose itself at last in the distant line of woods. Old rice fields, once the pride and mainstay of Merry Bell plantation, still strove to maintain existence despite the encroaching saw-grass that sprang up on every side. Shallow streams flowed in and out between the grassy banks; little bays, dotted about with clumps of matted rushes; patches of mud and water plant—flat stretches of mud jutting out from the line of shore.

A wondrous domain, did I say? It seemed all of that to me. My host was pointing down to a tiny blind in one of the near-by field. "That," said he, "is yours for to-morrow; new this year but I guess you'll have some fun." I looked; then, I believe, I pinched myself. Yes, I was wide awake.

Those things milling about in the mud were ducks, a whole generation of them; more ducks than I'd ever imagined could collect in one small spot. I felt like saying, "Why, old man, have you elected to give me this blind which all the ducks in South Carolina have decided to patronize?" Honest, I felt just that way about it. Ducks! a very multitude of them were paddling about in the mud on all sides of that blind. We were too far away to make out their coloring but the intermittent quacks that rose to us on the light air told part, at least, of the story.

That breathless moment

There were ducks coming in in flocks, pairs, two's—singles. These were easily distinguishable against the evening sky. Here a little bunch of pintails, their trim necks stretched out like race horses, swept in from the reddening west; now it was a single black-duck, vacillating, cautious, doubting just a little that isolated thatch of grass. A rush of wings overhead—Gad! how close they were!—and pitching, soaring, nose-diving—a great line of belated ringnecks. Quickly they passed; swept down and up again; then off to some flooded rice field, perhaps, miles on miles away. The sky line was a veritable panorama of moving ducks. We watched them 'till the sun dropped below the distant woods and the fading light put an end to our gazing.

I could write feelingly and at some length of the indoor hospitality of Merry Bell plantation. Tell how, on returning to the house that night—and on other nights as well—there was, first the pleasant tinkle of ice—but there! what was I about to say? This is straight duck shooting stuff and as such I shall try hereafter to keep to the letter of the law.

THE picture of that first morning in the plantation gun-room is indelibly fixed in my mind. Four eager sportsmen surrounded on all sides by impedimenta of the chase: guns, cartridge cases, boxes, coats and sundry trappings. In a far corner my good friend Spears, struggling with a balky boot. Curses from Spears! Cheers, jeers, from the assembled company! Chapman yelling lustily for a missing case of shells! "Come on; let's get started," from H. L. "It's almost light" —and we grab our guns and ammuni-

tion, and make for the gun-room door.

One Sam, small and singularly dark of complexion, was assigned to guide me, keep my incautious legs from finding a permanent abiding place in the marsh, and generally "'tend to me," as Sam himself might have put it. I think Sam saved my life in the first hour of our acquaintance. It was a case of too much confidence on the one hand and too soft mud on the other. I shall not tarry over the details any longer than I tarried in that mud once Sam's good arm had effected a rescue.

Ducks were continually rising in front of us as we, by turns, poled and pulled the gunning skiff toward our blind. Bunch after bunch swung up from behind, setting their wings as they neared us, then flaring off at sight of the boat. I don't know what Sam's sensations were at the time, but I'm sure I was experiencing an accession of blood pressure that would have made an M.D. gasp.

How high they seemed as they reared and sped away! I glanced at my little 16 and a sudden doubt assailed me. Two great green-heads, intent only on finishing an interrupted breakfast, circled temptingly close. Should I try them? Sam's *"Shoot* 'em, boss" decided it. With an all-you've-got-to-do-is-pull-the-trigger sort of confidence I swung on that pair of mallards. At the double crack of the 6's they came plunging down within thirty yards of the boat. Then here, there—everywhere, the roar of rising ducks; the whistle of wings; and line on line of wild-fowl sweeping over the marsh.

> Those who have sat in a blind in the darkness before the dawn and have watched a new day creep up from the east—those who have felt the clean wind in their faces and have caught the sweet scent of marsh and dune will be glad to recall these things by reading this story.

We were nearing the end of the boat pull now, the blind but 50 yards in front of us over a No Man's Land of mud. Mud! I had ceased to think of it. "Sam," I said, "give me those shells, and for the love of Mike get out the decoys." Then I went over the side, and, step by step, made my way across to the blind.

Sam later confided to me that the initial barage I laid down that morning came near to making him gun-shy for life. Poor Sam! All the while he was busy dropping decoys, ducks kept coming over me; some too high to tempt me, others within reach of my little 16. And as they came I plugged away at them with rather fair success.

Once a darting green-wing coming from God knows where, whizzed past between Sam and the blind. I flatter myself that I was "on" that teal within something less than one-tenth of a second. Unfortunately, Sam's head chanced also to be in perfect alignment with my leveled gun. Well, I didn't shoot—not 'til after the duck had passed—but I missed my teal when I did shoot and I scared Sam half to death.

As soon as all the decoys had been anchored out and my guide had taken himself off—gladly, I know—to a nearby check bank, my shooting began in earnest. Mallards, fat from much good living, and accustomed for weeks to the sight of the blind, fell an easy prey to the guile of the "callers." My 16, I found, was quite up to the work and the No. 6 shot a murderous dose at thirty or forty yards.

I noticed on this day, as in fact I have noticed many times before, that black-ducks flying with mallards are almost invariably on the outer edge of the bunch. I can only put this down to superior intelligence, or greater caution—whichever you will; at all events, it is my belief that the black-duck possesses more all-around sense than any duck in the world. I know I tried for some time, unsuccessfully, to pick out a right and left on black-ducks from the various bunches of mallard that came to my decoys. Always I had that extra few yards to overcome; always to shoot through the mallards to reach those foxy blacks. In the end I had to let the front ducks light to the decoys—when I was able to get an unobstructed shot at a few of my coveted black-ducks.

THE sun climbed above its bank of haze, scattering the mist that hung like a pall above the teeming marsh. Had I had time I should have found keenest pleasure in watching the ever-changing lights that spread over the billowing

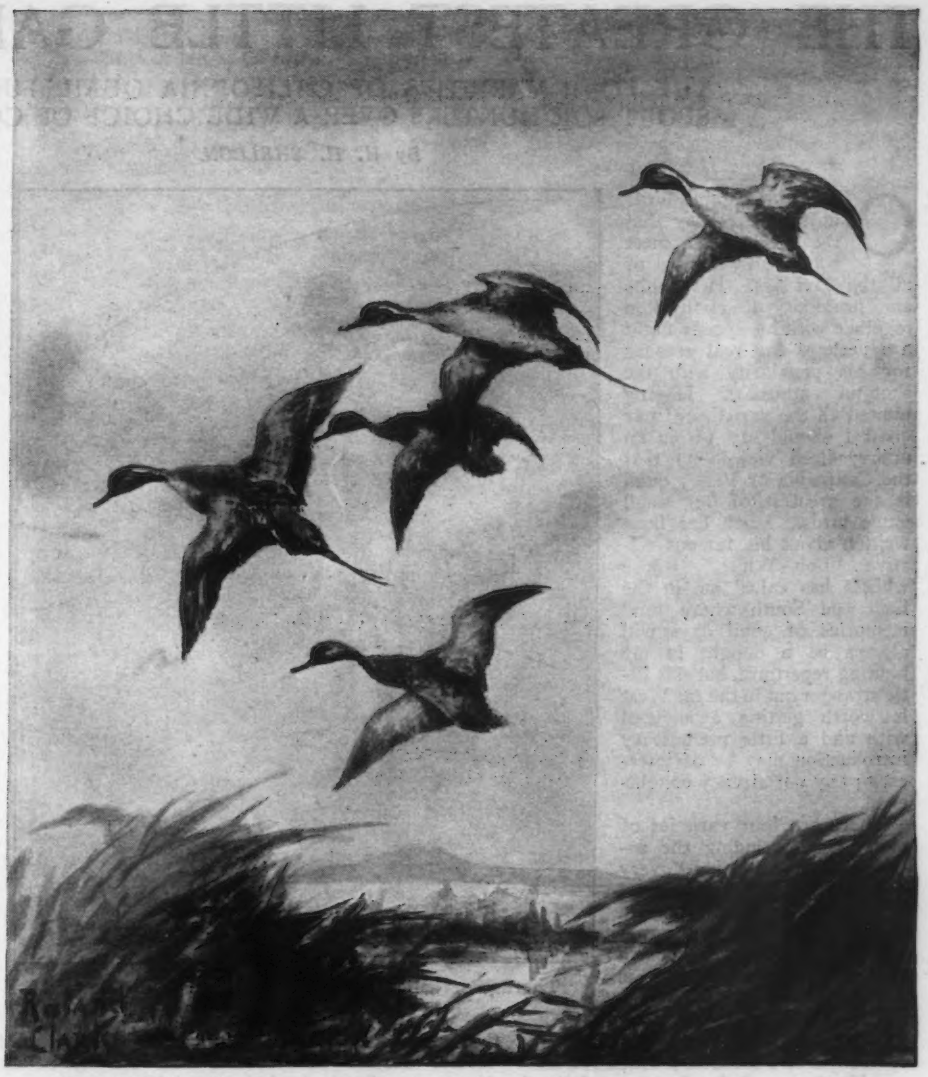
Salt Pond for that day at least was distinctly a Mallard rendezvous

saw-grass. Here, however, is a pair of pintail that are laying their course for the blind. Light and shadow—the pearly tint of winding water—are straightway forgotten as I glue my eye to a hole in the blind and watch those oncoming sprig. There! they are almost over; dropping, dropping, wings bowed, necks extended. My thumb makes sure that the safety is up—"Quack! Quack! Quack!"—from one of my trusty callers. Now! Blam!! Blam!! and I'm watching two feathered streaks go by, sound and whole, but oh! so pressed for time!

Guns are popping regularly at several points in the marsh. Ducks are being turned from one blind only to pass on and pitch to one of the others.

I have shot an appaling number of shells but, all in all, I'm satisfied. Something tells me it's time to quit. Counting the ducks that have dropped within sight, and figuring those that fell in the grass, I know I am close to the limit. I look at my watch and can scarcely believe it. It still wants some minutes to nine o'clock—and I've had a *whole day's* shooting!

"Sam," I ventured, as we pushed slowly back to the landing, "did I seem—er—to be getting them pretty well?" "Sure did, Boss. Reckon you'd kill a man ev'ytime ef you set you min' dat way." Which shows the trend of poor Sam's thoughts at the end of our morning's shooting.



A bunch of pin-tails, their trim necks stretched out like racehorses, swept past the blind

Kicking my heels on the Merry Bell porch, listening to the gunfire going on in the marsh below, I began to regret my own hasty work. Why the deuce hadn't I prolonged my pleasure just a little? Plenty of ducks. I might have let some of them get by without a shower of lead.

I walked around to where Sam was hanging my bag in the shade of the great oaks. Kimono was there also—I never could get closer than that to the name of my host's Jap—and the two were holding a lively discussion as to the respective merits of this and that kind of duck. Kimono, I realized, was animated by a spirit of pure commercialism. He was fondling a bunch of five or six sprig. "Fine, fine duck!" he kept repeating. "Nice duck; sell him lots money in Nu Lork—fifty—hundled dollars"—then a sad, deploring shake of the head. Sam was skeptical—"'Tain't *no* duck wuth more'n a dollar 'lessen it's a goose. Me, I likes fat meat better'n wil' fowl, anyways."

An hour later the other boys came in, their several bags equalling or exceeding my own, and if Kimono had been excited over my display, the sight of the string that was shortly hanging on the long game-rack might well have turned his head. Mallards, pintail, gadwall, black-ducks, shovellers, blue and green-wing teal—they were all there, rating down in point of numbers as I have set them here. Right now I will say that Kimono on the one hand and ourselves on the other, did full justice to those ducks. Under his skillful touch they became juicy morsels of passing entrancement. Oh! how good they were! Teal, mallard, gadwall—it was impossible to choose between them once Kimono had exercised his magic art and spread them out before us.

I REMEMBER a long paddle with Sam through winding streams where the cypress limbs arched over our heads. Dark aisles they were, through a waste of trackless saw-grass. Festoons of moss, gray and ghostly in the early morning light, hung from each gnarled and twisted bough. Now and then a great heron, aroused from his slumbers, rose ahead of us on noiseless wings and sailed away into the shadows. Scarcely a ripple disturbed the surface as Sam plied his silent paddle. Silhouetted against the gray water astern, that dense canopy spread above us and the banks showing black and eerie, I might almost have imagined old Sam some ghoulish boatman transporting me over the river Styx to a forest inferno beyond.

We were bound for no inferno, however. "Salt Pond" lay at the end of our journey, and Salt Pond, from all reports, left nothing to be desired from a duck shooter's point of view. Leaving the main stream—a small branch of the Cooper River—we entered a ditch so narrow and cluttered with snags and sunken logs that we had difficulty in forcing a passage. A vista of broad

(*Continued on page* 550)

THE GREATEST LITTLE GAME BIRD

THE FOUR VARIETIES OF CALIFORNIA QUAIL FURNISH SPORT FOR HUNTERS OVER A WIDE CHOICE OF COVERS

By H. H. SHELDON

OF the land game birds it is safe to say that the quail is the most consistently hunted of all the varieties. His habits and proximity to civilization together with his speedy flight are perhaps the real reasons for his popularity with the shotgun enthusiast. Having hunted all the varieties of our quail I should say (from an unprejudiced viewpoint) that the California or Valley quail is the greatest of our small game birds. Much has been written about his famous relative "Bob-White," whose whistle has called me in the East and South where fond memories of quail days will always be a delight in my hunting repertoire, but this little stranger out in the far West is worth getting acquainted with and a little preliminary introduction may be of interest to any not already enlightened.

The author believes in the twenty-gauge double gun

There are four varieties of quail (not including the so-called Mountain quail) very closely related and distributed throughout California, known as follows: the California quail (*Lophortyx californica californica*) whose range is limited to the humid coast region from Monterey County to Oregon. The Valley quail (*Lophortyx californica vallicola*) which is a subspecific form of the first named (and which this article will refer to chiefly, being the most abundant of the species and more widely distributed, viz.: from the vicinity of Klamath Lake, Oregon, except the northern coast strip and southeastern desert region, south through California and Lower California to Cape San Lucas and east to Western Nevada. These two birds are very much alike and unless held in hand could not be identified by the most expert. There is considerable difference, however, when comparative examination is made. The first named being darker, which is acquired through the greater humidity of the region it inhabits to that of the Valley quail of the arid regions. The habits, however, are identical and as far as the sportsman is concerned we can call them California or Valley quail, whichever happens to "flush" first. Then there is still another form which I mention simply to make up the aforesaid quartette which is found on Santa Catalina Island, but as this quail is such an isolated form and with such a limited range (being confined to the island) it will not be of interest to give a detailed account of the bird. It is similar to the former named except that like the Northern relative, is darker and has a slightly larger foot. It is known as the Santa Catalina Island quail (*Lophortyx californica catalinensis*).

To conclude, the desert form known as the Gambel quail (*Lophortyx gambeli*) is a separate species as the name implies and stands out decidedly apart from the allied forms in coloration (see Fig. 3), and being an inhabitant of the desert and the adjacent regions, its habits are somewhat different. Comparable to the Valley quail, it is not as much of a flyer; runs when alarmed and hides more readily, and from the standpoint of the sportsman is not as "gamey" for hunting as the Valley quail. The Gambel quail is truly a bird of the arid lands. The introduction of this species for propagation to the hills of the more humid regions proved unsuccessful. It likes the great tracts of mesquite and quail brush and the environment of the desert. Aridity is the essential factor in the life of this species. It is not the cold of the northern parts of the state which effects its living, but the humidity. They have not been known to exist away from the land of sage and cactus. But with all their exclusive habits they do associate with the Valley quail in certain districts and hybrids have been taken of the two. Unlike the beautiful scaled markings of the California quail the Gambel quail has a ground color of creamy buff beneath, with a splash of black (a striking combination) against a gray breast, black throat margined with white, and otherwise somewhat similar in conformation with the California quail.

IT has been said that quail are to be found most anywhere in the region they inhabit. In one sense of the word that statement follows for they travel high, low, far and wide. However, it is not a matter of "go into the hills and walk until you run onto a flock." They are governed by the elements, season, food, climate, etc. Finding a flock of quail is not a matter of guess work. Much is to be taken into consideration in the quest of hunting. It not only applies to quail but to all wild life. Of course, it is not a matter of ponder and study over the country; a good hunter looks over the territory and with a small amount of deduction sees at once where the game should be. He may err occasionally, but if the game is in the vicinity he won't be long finding it.

There are many young hunters and no doubt many old ones who invariably come home with empty coats and tired legs, because they have overlooked the detail in the landscape. Learn more of the habits of the game, the form of the earth and its growth and the word "hunting" will perhaps be eliminated from your sporting vocabulary. Quail, not unlike any form of wild life, can be termed habitual. They follow certain ways of living, deviating hardly a noticeable difference from one day to another, except where the seasons of the year effect them in the regular manner.

In the early days, we'll say from thirty years backward, quail were so abundant in certain areas that it has been recorded, flocks of upward of a thousand birds have congregated at a drinking place; at such times it is natural to believe that their habits during such periods as the assembling of the flocks after the breeding season would be unlike those of today; chiefly because they had not been affected by the environment of civilization. In those days

quail were not the wary birds the sportsmen of today encounters. This can be verified by retreating to some isolated wilderness where mankind seldom travels and you'll find them quite unlike the alert, active brother whose domain happens to be in closer association with civilization and easy access of the auto. On the other hand, the semi-domesticated quail that struggle within the confines of the country towns and rear their broods, become even more unsuspecting than their widerness kin.

In 1908 the writer had occasion to spend the fall months in the Greenhorn Mountains in Kern County, California, and it was a common thing to flush a flock of three hundred or more. They would seem to literally pour out of the thick, brushy ravines, only to drop into shelter after a short spurt of wing. The limit bag at that time was fifty, today it is fifteen. Today it is real sport to get fifteen. At that time and place it was a matter of shooting with the frying-pan the incentive. But the birds close to home are the ones accessible to our week-end holiday and these are the variety of quail we can well term "educated."

They disappear with equal alacrity to the report of a gun or at the approach of a prowling Bobcat; and quite the same sense of sagacity for instance could be applied to the Bob-Whites in the settled districts of Maryland, comparable to those of a Texas wilderness.

They have become wonderfully adapted to the changes brought about by the increasing population, and in spite of the modern firearms, long open seasons, big bag limits and great tracts of land, now cleared, which once formed their habitat, they are holding their numbers remarkably well; due chiefly to their marvelous speed of wing and alertness in avoiding enemies, and in no small measure to the more drastic game laws of recent years and the better observance of the same by the great and ever-increasing hunting populace.

THE Valley quail, as the name implies, is not an habitual dweller of the mountains, though in summer in such localities where the foothills come in abrupt contact with the Sierras it may be found far above its regular haunts and has been recorded as high as eight thousand feet altitude.

Brushy ravines and rough little gulches of scattering tree growth, hills of sage brush and the higher and rougher ranges of Chapparal, verdant valleys and the foliage along streams of the bottom lands, all make up the habitat of the California and Valley quail.

In the more arid sections they may be found well out in the sage brush adjacent to some little brook. In such places it is a delight to hunt them as there is nothing to obstruct the view and it offers more deliberate shooting. But in direct opposition to this a covey found in the wooded area of rough hilly country taxes the hunter to the utmost and compels the snap shooting style of hunting, which usually results in more bodily exertion than success. The most desirable quail ground is the open, undulating hills where the gulches or ravines are luxuriant of brush and plant life, with just enough timber to keep the birds from flying too far.

Mr. Sheldon is a Sportsman-naturalist—a man who combines a deep love for the open places and the red-blooded sport to be found there with a keen desire to find out more about the habits of the game he shoots. In writing this article he has exercised both sides of his temperament.

Several birds may be taken from a flock before it has disintegrated and scattered to cover. If there is timber or other heavy shelter near they will seek it, while if all barren they often fly to far and uncertain places. When they have reached shelter, the hunter should leave the locality and look for another covey. The scattered flock will soon after commence to call and an hour or two will find them together, when more birds may be secured.

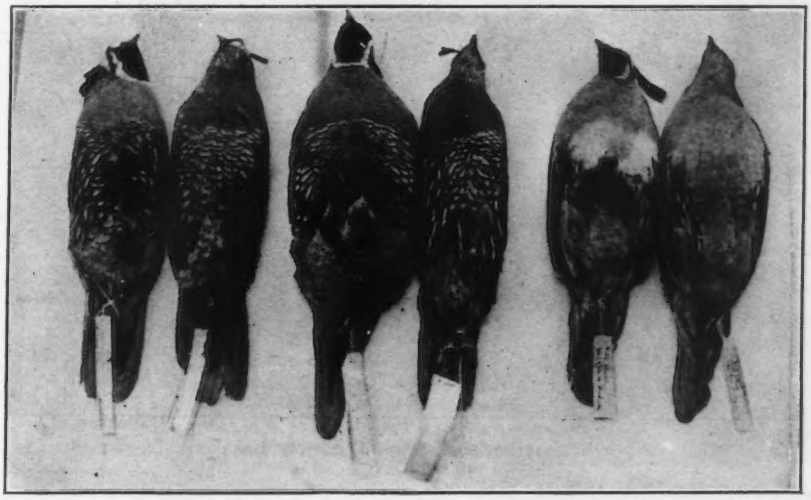
With all conditions in favor of the hunter it is often possible to take a limit bag within an hour or two from one flock of birds in the character of country above mentioned.

To hunt quail with a well-broken dog is not the more efficient method, but is combined with such rare pleasure and satisfaction that memories of a day thus spent are never apt to be dimmed with time. While a dog is by no means essential in hunting the California bird there are many reasons in favor of the dog. First, from a conservative standpoint, it is rarely a "dead bird" is lost, and wounded birds are usually reflushed or picked up, which obviously procures the desired number of birds with less destroyed or lost.

Then, too, the birds hold better, do not fly out *en masse* as is often the case when the dog is absent. Again, when the shooter has made a "double" or perhaps a "triple" (according to his type of gun) and in fact may drop a half dozen birds within a radius of shotgun range, he remembers about where they dropped and the trained dog does the rest. Otherwise a certain percentage of the birds are never recovered. The charm of watching an intelligent, trained and experienced dog work—body aquiver with interest and excitement, all his keen senses attune to the hunt—his statuesque figure "at stand" is in itself equal to all the other features that make up the sport of quail shooting.

Quail are to be found in various types of country, and to know where to find them it is necessary to learn something of their habits. In the early morning, for instance, they can usually be found on the ridges enjoying the first sunshine, later working down to the lowlands to drink. This is not a set rule, however, as their movements depend largely on the character of country, food and water. In the middle of the day they seek the denser growths, well up from the ravines, where they dust and sun themselves and scratch about in leisurely fashion. When they have been hunted to some extent they will often seek the most isolated brush patches, often near the top of a gulch and remain in hiding until late in the day before moving out to feed. While the California bird is not addicted to running as habitually as some of the other Western forms, he can, however, be classed as a sprinter when necessity demands. Long distances are traversed on the ground and it is not often they will take wing unless frightened. They are beautiful little creatures when seen running to-

(*Continued on page* 560)



Male and female valley quail, California quail and Gambel quail. The larger size of some of the specimens is due to over-stuffing

TRAPPING THE THREE RIVER ZONE

ACTUAL EXPERIENCES OF A TRAPPER DURING A PERIOD OF SEVERAL YEARS IN THE WILDS OF NORTHERN ALBERTA

By RAYMOND THOMPSON

Who has not wanted at some time during his life to become a trapper? Even the man who owns a large and well-stocked game preserve and whose sport is secure for the proverbial three-score years and ten—even he envies the freedom and the resourcefulness of the trapper.

Read this story and you will feel the lure of lonely lands and the romance that forever surrounds this fascinating game.

AS I look back over the years I spent as a young lad I can see that I was truly destined to live the life I have led and I believe "There is a Destiny that shapes our ends, rough hew them how we may"; today I am not ashamed to think that I have been, and still am, a plain hunter and trapper. When I was about fifteen I wrote an account of a trapping expedition into the wilds of Canada that would make some of our fictionists sit up and take notice. If I remember rightly, there were four or five large "scratch" tablets of that narrative, all drawn of course from a lively imagination largely influenced by all the wild tales I had gobbled up. In this story two of my chums figured largely, although naturally I was the big IT. We caught silver foxes by the score, chewed grizzlies' ears for mere pastime, and everything else in proportion! The only living soul that read that yarn beside the writer was my youngest sister and she has since confessed that it was one of the most thrilling things she ever read. Alas that dreams must be shattered by realization.

There wasn't much opportunity for either hunting or trapping near my home, but I did hunt and trap everything I could. I practiced largely on the demon coyote and will say that never in the wilderness have I run across any animal that was so trap-wise! But every trip I made into the "scab lands" east of my home town only increased my longing for and determination to see the real wilderness. Opportunity came the fall preceeding my nineteenth birthday. A cousin, I. A. Perkins (better known as "Cy"), was working for a farmer some fifteen miles distant from the place where I was working. We had just finished harvesting and while we were eating dinner the lady of the house announced that I was wanted on the phone. It proved to be my cousin.

"Ray," he said, "I'm going to Canada, want to go along?"

"Sure thing!" I answered, and arrangements were made so that I would meet him in Spokane the following day. I have often wondered how my poor mother felt, when without warning I told her that I was going into the wilderness a thousand miles to the north. Since that time I have received so many letters from young fellows contemplating something of the same sort, that I have always urged them to consider their mothers always. However, such is life. And even now I am figuring on making a trip home this fall, and if all goes well I will again see my loved ones from whom I have been absent four long years. My years in the wilderness have sobered me and while I am still a very young man, I can see how quickly the time glides away.

The author's cabin on Kimberly Lake

VERY few men and boys with trapping proclivities have not pictured to themselves a life in the wilderness, a sort of an ideal existence and a regular trappers' paradise. My cousin and I were not exceptions to this rule and many were the wild fancies of which we dreamed, often aloud, as the train rolled northward. Our primary object had been to hit straight for the Peace River district. At that time there was a steady stream of immigrants pouring into that part of Canada and many marvelous tales were circulating freely in regard to the great opportunities that lie in store for the intrepid settler. We got all the reliable information on the subject we could procure (maps, data, etc.), and studied the situation from every angle.

Although we were both under voting age we exhibited a sound bit of reasoning when we decided to give up the idea of hitting for the Peace River. We figured that, as everybne seemed to be so crazy about that part of the world, it would be a mighty poor place for a couple of greenhorns to steer into. On one of our maps was a crooked, dotted line, indicating an old trail that lead into two hundred miles of wilderness that lie to the north of the Grand Trunk Pacific Railway and just east of the Canadian Rockies. Not a single Indian Reserve or timber claim was marked on this twenty thousand square miles of wilds and as near as we could find out there were hardly any trappers in that district. The starting point of this trail was from Edson so we embarked on the G. T. P., reaching that point at the unpleasant hour of four o'clock on the tenth day of October.

A comparatively short time previously we had left a hot climate and here the frost was thick enough to cut with a knife! We sat shivering in the railway station for an hour or so and then shouldered our packs and lit out. All our worldly possessions were in two large pack-sacks; Cy's weighed eighty-five pounds and mine ten pounds less. Now these were mighty heavy packs for young tenderfeet, besides we had the following weapons: Cy carried a 30-30 Winchester and a Marble Game Getter (a two-barreled gun using the 44 shot or ball in the lower barrel and the 22 in the upper), while the writer toted a 32-30 Colt's on a belt and a 35 Remington auto wherever it rested lightest.

Whenever I think of the outfit with which we fared forth to conquer the unknown I always smile. We had enough ammunition to keep a first-class revolution going for a year or two, two

axes, a couple of blankets, fry pan, tin plates, knives, forks and spoons, some extra clothing and six traps. "Where was the grubstake?" I hear you ask. Well, we had it all right—a three-pound sack of salt! Of all the prize fools, we were a pair, yet our experience proved that it is a mighty hard thing for a strong, healthy man to die of starvation.

Our first lynx

As latter events progressed we became more and more convinced that Dame Fortune was looking after us in great style.

Our first stroke of luck came in the shape of a team hitched to a light rig, which overtook us about three miles out on the trail. Some homesteader's children were in it and they agreed to take our packs on to their home, a couple of miles further on. We had been resting so much along the way that it was then getting on toward noon so we gratefully stopped at this settler's place for dinner. After a bounteous meal we felt much refreshed and went on our way rejoicing. That evening we camped near a small lake. Cy drew first blood of our trapping expedition as he shot a fine mink at the outlet of this little pond. It was rather small but very dark and fairly prime. That night I didn't sleep very much for fear that a bear would walk off with me; once or twice I had a bad nightmare and woke up shivering. It was my first taste of the wild and woolly and I had some sort of an idea that it was dangerous to be safe in that neck of the woods.

We stayed at this lake for a couple of days and explored the country west of there but found it too low and swampy for good trapping, so decided to move on up the trail. A family by the name of Rose owned the 10-Mile Stopping Place at that time and from them we learned that a freighter would be along within a few days to take some stuff up to a trapper at Mile 108. They told us that if we cared to leave some of our stuff with them they would send it on up with this freighter. Needless to say, we were mighty glad to leave some of our heavy stuff, and thus greatly lightened went on up the trail.

We saw our first moose the next day but were so dumbfounded that we let him depart in peace. That night we camped at the deserted Mile 20 and the following morning Cy was again lucky enough to get a shot at a cross fox, which he floored the first crack. It was in beautiful fur and the first of this kind either of us had ever seen. Our next stop was at Mile 35, another vacated stopping house high up on the side of Moose Mountain. The timber in this part of the country was fairly heavy, and had we but known it this was one of the best marten and fisher countries at that time within a good many miles.

The pen in which the black bear was caught

THE morning we left the 35 Mile place I shot twice at a big wolf, right from the door of the old house, and I guess he's still moving. Game seemed very plentiful, large and small, and we often stopped to throw stones at spruce partridges (fool hens) and snowshoe rabbits. From Mile 35 to Mile 47 the old trail was a succession of "up hill and down dale," the last long slope down into the valley of the 47-Mile Creek was four miles long. We stopped for dinner here and then hit out for the Athabaska, as according to the map we had it was only six miles further. The trail led down along Canyon Creek, this stream emptying into the river at the foot of another four-mile hill. We discovered the Athabaska to be a large, swift-running stream.

At Athabaska Crossing we saw the first human since leaving the 10-Mile, a ferryman by the name of Jim Hindmarsh was stationed there in the government employ, his job being to transport any teams or travelers across on the ferry. He proved a most likeable chap and in later years I came to regard him as one of the best friends I had on the old trail. Naturally we were curious to learn all we could about trapping in that vicinity and that night he gave us what later proved as valuable information relative to the furbearers of that district. A short time previously he had shot a bear in a meadow back of the Stopping House and we sampled some of it pickled in vinegar. It was most delicious.

Hindmarsh advised us that an old trapper was located at the Baptiste Ferry, only three miles distant by pack trail, and he hinted that we might be able to get in with this man for the winter. Accordingly we set out the next morning for the Baptiste. "Old John" Anderson, the ferryman, came across in response to our hail and took us back in a small boat to his cabins on the north side. Old John had a reputation for being one of the worst grouches that ever walked; be that as it may, I found him one of the squarest men to deal with I ever had the pleasure of meeting. True, he was gruff and outspoken in his manner but he had a number of splendid qualities that more than offset this failing.

A silver fox—the trappers' pot of gold

Old John had done considerable trapping in Michigan and Wisconsin in his younger days, and while he had done very little along the Baptiste he was nevertheless thoroughly familiar with

(*Continued on page* 564)

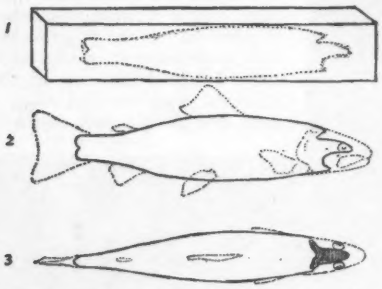
HOW TO SKIN AND MOUNT A FISH

A KNIFE WITH RAZOR-LIKE EDGE, A PAIR OF SCISSORS AND A LITTLE PATIENCE WILL PRODUCE WONDERFUL RESULTS

By LOUIS RHEAD

EVERY angler in his day captures his sockdolager of some species or other, and it invariably happens to be gotten in a situation or time that is inconvenient to transport in fit condition to the taxidermist; or it may be, if a big fish were taken, they would not know *how* to prepare it for transportation, especially in hot weather. A few are content to buy a big trophy already mounted, and after a time get to fancy it their own capture or one like what they really did get.

I venture to think, however, there is a growing desire among many in the craft to learn for themselves its various bypaths, and this one—of mounting a fish, which may be done at a little trouble to give a lot of pleasure. It's easy enough when you know how. I myself blundered through it without the aid of a taxidermist or books of instruction on the subject. Of course, being an artist has some advantage, such as shaping the



1 Wood block. Dots show size to carve
2 Side view of carved wood
3 Top view to show body width

form of fish and of coloring. That is the part I hope to describe in this paper in words and diagrams so plain and simple that anyone may do likewise fairly well enough.

With this preliminary we will now proceed to skin the fish; best done, immediately after its demise, even at the riverside, the only requisite being a knife with blade of razorlike edge and a pair of scissors strong enough to cut through fin bones that lie in the flesh. It is possible for the work to be accomplished after you get home or at the hotel, but in a few hours the skin becomes hard and the flesh more difficult to strip away. The same thing applies to animals and birds which are much easier to skin while the body is warm.

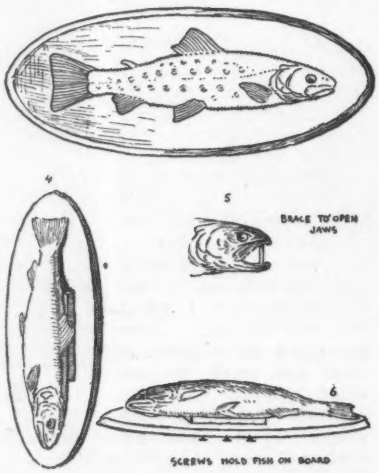
Of the various species of trout, we shall experiment on the brown trout, because the skin is thicker, not so slippery, and the scales are larger than the brook or rainbow. Furthermore, the glutinous substance which covers the skin does not

> How many times have you wanted to preserve the big fish you finally succeeded in landing, but couldn't do so because you didn't know how to go about it?
>
> This article explains in a clear and concise way every step in the process of game-fish mounting from the moment you lift your prize from the water until it reposes above your fireplace.

dry up so quickly as on the other species mentioned.

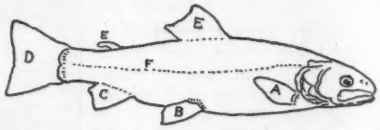
Your first care is to never mind how much the body flesh is mutilated or cut up; your object is to strip the skin without mar or blemish. I know some anglers are content to just strip one side of the fish and stitch it (Indian fashion) on a curved board, but that is a job which inadequately suggests size and weight and does not produce so artistic a trophy.

The work should be done upon a plank board. Begin by cutting out the eyeballs and through the sockets of which you drive a good stout nail which will hold the fish from slipping while you do the work. The illustrated diagram will show where to make the first incision on the opposite side you want to show and the side which is least pre-



Top cut shows stitched half skin
4 Top view of fish mounted on board

sentable. Slide the blade upwards towards the back till you get a fair hold on the skin and cut along the fish till you come to the dorsal fin E, the bones of which go some distance down in the flesh to join the backbone ribs. See and be careful not to cut the skin from the fins. After the entire length of the fish is stripped from the incision in back along to tail and head (skull bone), you then slide the blade downwards to the belly, which requires a little more care over the softer flesh than it does on the back. When you get to the pectoral fin A, which is at side near the gills, and also the ventral fin B, carve around slowly to the fin bones, then cut with scissors to be more free to cut the shoulder bone, which must be retained with the skin to give proper form around the throat, getting the inside flesh from the bone, working round under the throat as far as you can up the other side. Under the pectoral or throat fin and under the jaw it is most important to have no cut in the skin. Leave that part to attend to the tail, where you cut through the vertebrae, the last ones of which is at the sprout of tail, where you cut through with the knife to sever



A Pectoral fins, B Ventral fins, C Anal fin, D Caudal fin, E Dorsal fins
Dotted lateral line (F) shows where to cut the skin, starting at shoulder just above pectoral fin. Fin dots show where to cut bones under skin from the flesh with scissors and at caudal tail fin, cut through backbone with knife

backbone and flesh; then bend the tail down, you begin to work back on the other side till you come to the small fleshy dorsal fin E on the back and the anal fin C below, close to the vent. Each finbone, of necessity, must be cut with scissors. However, before the fins are cut you should take the fish off the nail and turn it over, then drive the nail right through the fleshy part of the tail from where the skin has been stripped.

You now have the greater part done past anal and ventral fins, then up to the dorsal on past to the back near the skull. Here you will have to cut away flesh to get near the first vertebrae that connects skull with backbone, which should be cut through with the knife-blade leaving the body only connected by the gills and throat attached to the entrails.

When the head is cut from backbone it is easy to cut away gill attachment at top of skull, then at the bottom where the gills are fastened to lower jaw is the last cut to separate the entire skull and skin from the body. If you wish to have the body for food slit along the

belly to vent and draw out the entrails by the gills, wrapping the body up in paper to be washed when you cook it.

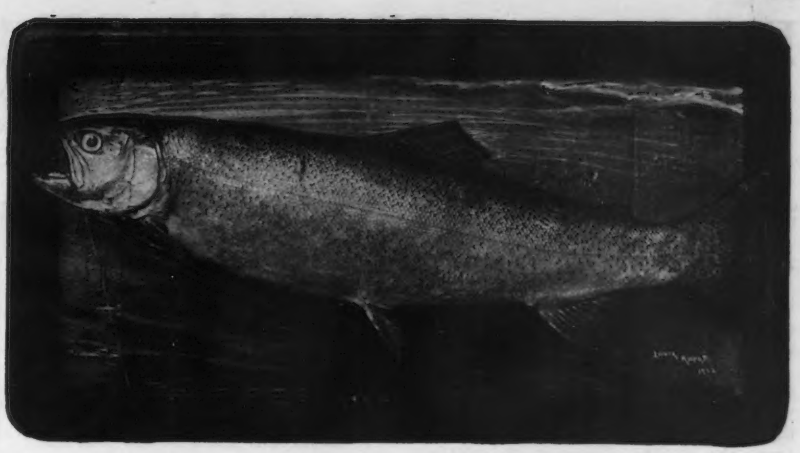
If the fish is a large one, say, over three pounds, you must break open the skull from the inside to dig out the white brainy substance, filling the cavity with cotton wadding well mixed with saltpetre, powdered fine. If any blood is on the outside skin, wipe it off; don't immerse the skin in water. Should the work be done at the riverside, some distance from home, you should well grease the outside skin with muchlin, then fold it and wrap it in paper or cloth so that no flies get at it till you get home. When there, stretch out the skin to its proper shape, scattering powdered saltpetre all over the inside, then place a piece of oiled paper or cloth, cut to shape, between the skin so that the two sides do not stick together. The outside skin will take care of itself and soon dry, but the skin trophy should be placed in a box tight enough to prevent flies from getting on the skin. The box may be kept in your room or closet; it won't smell, but gradually dry up in a fairly warm, dry situation. Of course,

Mount denoting action

it is far better to have the skin stretched on the artificial body as soon as it is possible. In any event, if you desire to have the jaws open instead of shut you should at once prop it open with a stick before the skull begins to harden, which it does in a day or two.

THE next procedure is to make a body upon which to stretch the skin. Various methods for this have been used and are still in use. Bodies are made of wire frame, wrapped round with cotton wool, furniture hair stuffing and other soft materials built to shape. Another method is to shape out a plaster cast; in my opinion, a very bad method, because, in time, the plaster crumbles and falls away, the skin will not stick; then again, it makes the trophy very heavy unless the cast is hollow, and when so the slightest knock breaks it.

My own method, which has proved satisfactory, is to get a piece of balsa wood, which is twice as light as cork and twenty times easier to carve. This same wood is used for life rafts and belts. The wood is so easily cut that the shape may be made to fit the skin



Rainbow trout mounted in life-like form by author

in less than an hour, taking care to measure and carve from diagram here given. The wood is very reasonable in price and may be ordered from American Balsa Co., 50 East 42d Street, New York City. To order a piece, say, for fish that measures twenty inches in length, it should be 25 inches long by 6 inches high by 4 inches wide.

When the wooden body is done you stretch over the skin to get a perfect fit. If the skin is stiff and does not fit snug and tight, you will have to immerse it in water till the skin is soft and pliable, then stretch it tight over the wood till you get it right. The skin should then be removed and the wood given a coat of white shellac; when dry put on a coat of glue to make fast the skin.

After it is properly dry the trophy is complete, ready to be nailed or screwed on the board mount of whatever shape is desired—round, oval or square. The body should be fastened by long screws through a small block of wood from the back of the board mount. When the skin has thoroughly dried the red and blue spots have become somewhat dim and they should be just touched and brightened up with artists' tube colors. Cobalt-blue mixed with a little flake-white for the blue spots, and deep orange crome for the red spots. In three or four days the paint will dry, then you apply a coat of velspar varnish over the entire body.

Any taxidermist will supply a pair of glass eyes for the kind of fish you desire if you send the eye socket size. Don't varnish over the glass eyes, but get quite close up so as to set them well in the cavity. Before the varnish is applied and while the skin and fins are soft it is wise to tie on a piece of cardboard, lined with oiled paper over both sides of the fins and tail to stop them from curling up out of shape, to be removed when dry, which will be in a day or two. If you have the mouth open it should be varnished inside. The same method may be used for any other fish—bass, pike or salmon—each of their skins will give you the base on which to form size and shape.

Instead of a plain, simple flat fish, the ingenious angler may carve the body bent in any attitude he prefers, either rising up to a fly or curved with head up or down in a fighting position. If the wood is cut to the right size that will fit, the skin will go on the wood just the same as if it were cut flat.

THE final result of my studies is here shown in the accompanying illustration, which, of course, a photo does not begin to show the beauty of the painted background — its blue, rippling wavelets through which the fish is running. But it does show a lifelike attitude that carries the angler's thoughts back with vivid realism to the most supreme moment of the fight—as I think,

Rising to the fly

no other mounted trophies have heretofore done, to make a real combination of the fish in its watery element painted with fidelity and truth.

The skin of this beautiful rainbow

(*Continued on page* 576)

FISHING FOR BASS ON HORSEBACK

SOME OF THE BIGGEST FISH LURK IN STREAMS WHICH ANGLERS FEAR TO APPROACH BECAUSE OF THE DREADED RATTLERS

By G. HORTON GLOVER

Mr. Glover has struck a new stunt in the age-old game of fishing that is at once unique and fascinating. Read how he came to evolve an idea that we predict will be popular with the ever-increasing army of fishermen who are swinging to the South each winter for the sport that the ice-bound waters of the North deny them for a season.

HENRY is a long-lank-clean-cut Florida Cracker. He was not always thus, because some ten years ago he packed up his belongings in the mountains of Georgia and emigrated south, settling on the edge of St. John's Marsh.

He seemed to be afraid of nothing except an alligator, as one nearly got him while he was passing a scrub palmetto that was located a considerable distance from the water. There is no question that Henry was off his guard, as he told me his feelings were much disturbed on account of dodging a few feet of well armored 'gator tail.

Well—! You can't blame him. But this is not liable to happen to you or me, as 'gators seldom leave the water except in dog-days and at such times it would be almost impossible to fish, as the mosquitoes are entirely too numerous.

NOW Henry often told me a rattler or any kind of snake was the least of his troubles, yet this was hard for me to believe as one could not help noticing that he never took a step without his alert and ever-shifting eyes first scanning the locality. Besides, he carried a small bottle that contained the essence of a Georgia herb that he believed was a cure for snake bites.

"It smells just like a mad rattler, and is a sure antidote," he confided as he removed the cork, allowing the sickening smell of musk to permeate the atmosphere. Even if Henry did have his little bottle I took no chances while in the brush, as my hypodermic and a fresh solution of potassium permanginate were always safely deposited in my pocket.

When you get struck by a snake it is nearly always because you are off your guard, or did not see it in time. This is more liable to happen as one travels the brush, where snakes are comparatively rare and one becomes careless, so when you do run across a diamond-back all the advantage is in his favor as on most occasions he is coiled and ready to strike.

There are times when a snake is too lazy to bother about anything, such as after eating a rabbit or other animal, and is sleepily digesting it while basking in the sun. The hot trail is a favorite spot on such occasions and it is advisable to watch your step. Again in the shedding season, it is supposed that it becomes partially blind, and will viciously strike at any moving object that comes near it.

The cast—he has struck—and is landed

With the exception of the above conditions, the diamond-back is a fox. You may pass a dozen in a day and will never be the wiser as he quietly slips off in the brush.

There are other poisonous snakes in this country, but the word Diamond-Back strikes awe into the very bones of most all of us. Particularly so in my case, as the local doctor told me last year that the bite was always fatal. Fortunately, this did not prove correct of late as I know he treated six cases that have recovered.

So with this in mind, and Henry breaking the trail, while his restless eye covered every inch of the ground before us, the danger was greatly reduced—but you may not always have a Henry handy, so for our mutual satisfaction we decided to take a fishing trip that would practically eliminate the snake danger.

MY car ploughed through a sandy road, the scrub palmettoes barely opening enough to allow a passage. The sand became deeper and I threw my car into second but as I crossed the railroad I was forced back to first speed. The road now wound through a typical pine forest. Each tree was decorated with its individual turpentine cup, and as I sped on, the smoke of a brush fire developed before me its grayish veil, obscuring my passage.

Fortunately, the flames had not reached the road and I plunged through the smoke into the bright sunlit plains of waving sword grass. Beyond, a bunch of long-horned Florida cattle scampered away only to stop suddenly and eye me curiously. I could now see Henry and the horses partially submerged in the sea of pulsating grass. I pushed on to our meeting-place as a razor-back or two slipped off the trail with almost human grunts of disapproval.

"Good morning, Henry," I said as the car drew up. "Glad to see you. Was none too certain of the trail out here; besides the fire nearly cut us off."

"Thought you would have trouble," he replied, "suppose we will have to go back another way," he mused as he inspected the smoke cloud.

Henry helped me on with my snake-proof leggins, and after swinging into the saddle, he handed me my casting rod.

"Well! this beats walking. Some of them would open their eyes if they could see us going

(*Continued on page* 559)

NATURAL HISTORY

AN ASSEMBLAGE OF FOSSILS

WHILE on a fishing trip this summer, I was attracted by a clear pool in a stream and took a plunge. While wading out my foot was lacerated by some sharp object which I discovered to be the shark tooth, No. 5 in the accompanying illustration. Having my curiosity aroused, I started hunting along the bed of the stream and soon found the collection illustrated. I have had the specimens identified, which indentification I give herewith. Numbers 1, 2, 3, 4, 5, 6, 19, 26 and 29 teeth of a prehistoric shark-like fish. Numbers 7, 10, 11, 16, 18, 22, 23, 27, 28 and 30, the same, different species. Numbers 12, 13, 14,

A mastodon's tooth

15, a third species. 9, tooth of prehistoric alligator-like reptile; 20, piece from tail of extinct sting ray; 21, tooth of extinct beaver; 24, milk tooth of the three-toed horse, from which our modern horses have descended; 25, same as 20; 32, unidentified vertebra; 8 and 31, stone formations. The prize of the day, however, was the mastodon tooth illustrated in the above photograph. This tooth is 4½ inches long.

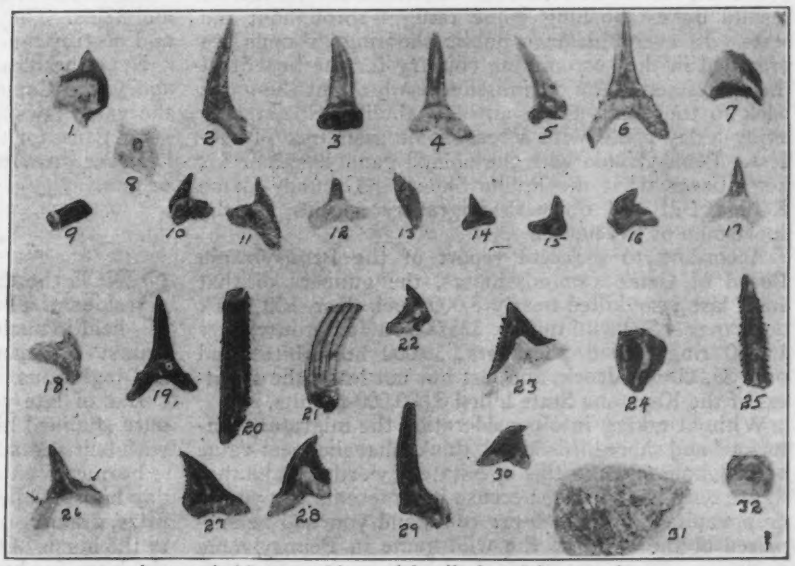
The sharks and rays are salt-water fishes. The mastodon a land mammal, the 'gator a fresh-water reptile. How did all these fossil remains find their way into the bed of a fresh-water, spring-fed stream in the center of the state?

HERBERT C. MCKAY, Florida.

Mastodon has been found in several localities in Florida, also three-toed horses. Beaver I do not recall, but it is recorded from South Carolina. Shark teeth are common, and I have seen crocodile and sting ray from various localities in the state.

The association of land, fresh-water and marine animals is paralleled in the fossil fauna from the phosphate beds near Charleston, S. C. It is explained as due to their being washed out from different formations, some fresh-water, others marine, not of the same age. In the Charleston phosphates the land animals are from a Pleistocene formation, the marine animals from one or more tertiary formations. They have been dredged up from the bottom of the river, all apparently mixed together.

W. D. MATTHEW.



A remarkable assemblage of fossils found in one place

THE TROUT OF CALIFORNIA

By Dr. Barton Warren Evermann

THERE are in California many more or less enthusiastic followers of good old Isaak Walton, who more than 240 years ago wrote "The Compleat Angler, or The Contemplative Man's Recreation; being a Discourse of Fish and Fishing not unworthy the perusal of most Anglers," a most delightful book which should be in the library of every one who thinks himself an angler. And, according to the State Game and Fish Commission, there are 150,000 of them in California; at any rate, that is the number of anglers' licenses bought and paid for in California last year.

All of which goes to show that the number of our people who enjoy "wetting a line" in lake and stream, and who hie themselves at least once a year to the mountains in quest of the festive and ofttimes elusive trout constitute no small army of hopeful beings.

They are out for trout or other members of the Salmon family—the Salmonidæ—the most important family of fishes in all the world; a family of more than a hundred different species and kinds. In it are found all the various kinds of salmon, trout, charr, whitefish, lake herring, and that strange fish of the rivers and lakes of the far north, the inconnu.

This family of fishes is restricted in its distribution to northern waters. No species is found south of the Equator, and only one or two as far south as the thirtieth parallel. One occurs in the San Pedro Martir Mountains of Lower California, one well down in the mountain streams of Chihuahua, and a third, the Eastern Brook Trout, southward in the Alleghenies to northern Georgia. Northward in America, Europe and Asia, various species extend as far as freshwater streams and lakes are found.

One of the motives uppermost in the minds of the men who founded FOREST AND STREAM fifty years ago was that the magazine should cultivate a refined taste for natural objects and this department has come down through the years steadfastly holding to that precedent.

Most of the species are strictly freshwater forms, spending all their lives in streams or lakes. Among these are all the whitefishes and lake herrings, and most of the trout and charrs. Others, such as the salmons, and some of the charrs and trouts, are anadromous; that is, they spend most of their lives in the sea where they grow rapidly, and come into freshwater only at spawning time to deposit their eggs.

Some of the species, as the Eastern Brook Trout, the Atlantic Salmon, and the five species of Pacific Salmon, spawn in the fall of the year on a falling temperature; that is, when the water is be-

(*Continued on page* 538)

FOREST AND STREAM

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THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects. August 14, 1873.

GAME CAN BE SAVED

WHEN you hear a man say, "The game must go," think of Pennsylvania. When you hear the pessimist acclaim that in five years the settling up of the country will have wiped the game from the locality in which he lives, remember what Pennsylvania has done.

Nearly four score years ago Frank Forester predicted that in 1900 there would be no game shooting in America. Surely he was wrong, and we believe that calamity howlers of to-day are just as badly mistaken.

Twenty-five years ago Pennsylvania was shot out. To-day the gunners of that state are furnished with a brand of sport that cannot be equaled in many states, and she has not only furnished the game, but Pennsylvania has gone farther and furnished her citizens with a place to shoot.

The public shooting ground—game refuge idea has conclusively proved its worth in that state. The Pennsylvania game commission has accomplished wonderful results by establishing game refuges throughout the state. In every instance public shooting grounds are provided in the surrounding country for the benefit of the sportsmen. The commission has brought the game back to the point where any law-abiding citizen may enjoy a day afield with a reasonable assurance of success. Pennsylvania with the upland game has done for her citizens what the Public Shooting Ground—Game Refuge Bill will do with migratory species for the sportsmen of the nation.

According to a recent report of the Pennsylvania Board of Game Commissioners, the gunners of that state last year killed nearly 5,000 buck deer, 500 black bear, over 4,500 wild turkey, 325,000 ruffled grouse, over 15,000 ring-necked pheasants, 50,000 bob-whites and over 35,000 woodcock, and last but not least, the shooters of the Keystone State killed 3,600,000 rabbits.

Without taking into consideration the migratory waterfowl and shore birds killed, think what the meat value of the game taken in this one state is worth. Take that figure only as interest, because it represents the yearly crop, capitalize this at 6 per cent., and you will be surprised at the value of the wild game in Pennsylvania to-day.

Any state is fully justified in protecting and caring for the game within its borders from the standpoint of the food alone, to say nothing of the benefit accruing to the citizen who secures health of mind and body by an occasional day afield.

CAREFUL HANDLING OF FIREARMS

SUPPORT of the movement for careful handling of firearms by New Jersey sportsmen has cut gunning accidents in that State to a minimum annual record. The Fish and Game Commission, a few years ago, began its "safety first" campaign for hunters, and the results have been far-reaching. A sort of esprit de corps has been built up among hunters and the man who handles a gun in a way that would menace his own safety or that of others, is quickly frozen out of a hunting party by the other members.

"Don't shoot until you see your game distinctly," is a rule which the commission insists that every gunner should remember in the field. The man who points his gun and presses the trigger before he is absolutely sure what he is firing at should not be tolerated by decent sportsmen. He menaces the life of other persons and he is a potential law violator, for even if he misses a human being, he may be killing protected game.

Other good points to remember might be enumerated as follows:

Never load your gun until you are ready to hunt. Never carry it loaded in trolley cars, trains, automobiles or other vehicles and never leave it loaded around the house. Remove the shells the moment you stop hunting.

Never lean your loaded gun against a tree or fence.

Never point a gun at another person in jest. It's the "didn't know it was loaded" gun that plays a ghastly joke on the pointer and pointee.

Never jump a ditch or climb a fence with a gun unless the shells are removed. Never draw a gun through the fence with the muzzle toward you.

Never rest on the muzzle of your gun—unless you are seeking eternal rest. Never poke the muzzle of your gun into the ground unless you are anxious to see a barrel explosion a few inches in front of your nose the next time you press the trigger.

Never "hog" all the game. Never kill more than you can immediately use. You, yourself, may want to go gunning next year.

Never fail to kill the tramp cats you find in the woods and fields. They prey upon birds valuable to the farmer and destroy much young game.

Never hesitate to report to wardens or the State Fish and Game Commission, in confidence, all violations of the game laws. These laws must be enforced to conserve game for the benefit of all sportsmen.

Never grow too old to enjoy a day's sport with rod or gun.

TRAPPING SKUNKS

SINCE the day when man first began to adapt the skins of wild animals to his own use, few have been held in such universal disrepute and derision as the skunk. His name has been a symbol of all that is base and inglorious.

But of late years all this has changed. Those who once shunned him the most, now dog his footsteps and with bait and scent and gun seek to capture him.

Formerly an object to be avoided at all hazards, today his soft black coat has come to represent a definite prize, a source of many dollars in the bank, and comforts in the home. Over a million dollars annually is paid by the large fur houses simply for the roughly dried skins.

To satisfy this demand, men and boys throughout the continent are turning their energies toward trapping this odorous little animal. And he is very easy to trap for he is not clever, and his trail extends from the warm swamps of the Southland to the Arctic snows. In addition, he is utterly fearless, and practically semi-domestic, as he often nests under barns and other outbuildings, and sometimes, much to the discomfort of the inhabitants, under dwellings.

Seldom found far from human habitation, he prefers for his home little holes and dens in gravelly ridges, and frequently even makes a woodchuck's burrow his own. For food, he prefers insects, birds, grubs, eggs and poultry, and he is very fond of any carrion he may obtain.

In Northern regions, his fur is ready for trapping by November 1st, as a rule, and continues so until the middle of March. Farther south, in warmer climates, this period reaches from December 1st until March 1st. As the skunk starts shedding about March 15th, he should never be trapped after that date.

In trapping skunks, the preferable way is to locate their dens, as many as twelve or fourteen sometimes being found in a single den. Once found, the den should not be destroyed, as that removes it as a source of revenue from future occupants. The inmates should either be trapped, or else smoked out, when they may be clubbed or shot.

In setting a trap at the entrance of a den, it should, if possible, be placed just inside the entrance, with the jaws lengthwise of the hole. Thus the skunk is compelled to step between the jaws. If he steps over them, when the trap is sprung the jaw itself will sometimes throw his leg clear. It is not necessary to use bait in a trap so set.

If a clear and well-defined trail is found leading away from a den, several baited traps should be set, and scent will be found a valuable aid. In fact, a good, strong, concentrated scent, easy to carry and use, will always justify itself. This may be home made, or, if desired, especially valuable ones may be obtained most reasonably from the large fur companies.

The best traps for skunk are Nos. 1 and 1½. Besides the neighborhood of dens, other good places for sets are between the hollow logs, and in any natural or artificial enclosure to which the skunk may be attracted by scent or bait.

While the intelligence of the skunk does not demand particular care in setting, it is always wise to observe due precautions, as often a fox or other more valuable fur bearer may be trapped.

SNOW AND FORESTS

OUR forests and trees have many enemies, of which fires and man with his destructive lumbering are the worst. Next in importance are probably sheep grazing, windfall and snow. Landslides, floods, insects, fungus diseases and lightning have also caused much serious damage. The enemies of the forests may be classed as natural and artificial. It is plainly evident that it is difficult and almost impossible to guard against most of the natural enemies of our forests, but it is a sad fact that the greatest destructive agents of our woodlands are of artificial or human origin. Forest fires and destructive lumbering have probably done more to bring about the present depleted condition of our forests than any other agencies.

Snow as an assistant in the work of forest depletion is generally of minor importance but collectively it becomes a serious enemy of the forests. Generally the damage is more marked in the coniferous forests, and among the younger trees. This is due to the fact that coniferous trees retain their foliage during the winter and younger trees of all kinds are more easily bent down by the weight of the snow. Hardwoods, as oak, maple and chestnut are also injured but generally less seriously.

A heavy snow loads down, crushes and breaks off the tops of the young trees and often breaks off large limbs and branches from the older trees. If the snow lies for some time, the trees which are bent over will seldom straighten and the injured trees must be removed. Mountain roads and trails become almost impassable for teams and automobiles because of the many trees crushed to the ground and hanging over the roadway.

Not only do forest trees suffer from snow injury but likewise ornamental and shade trees. In the case of small evergreen lawn trees as pine, spruce, fir, cedar and arbor vitae preventive measures can and should be taken, if the trees are to be kept from becoming misshapen and probably permanently injured. Shake the snow from the trees occasionally and do not allow it to lie any great length of time.

With most shade trees, a remedial measure can be adopted when the trees are pruned in the spring or fall. If no large crotches or forks are allowed to form in the trees and the growth is kept as near as possible to one central shaft or limb, or the longer branches shortened so that they will not exert too great a leverage, the losses from this injury may be reduced to a minimum. Shade trees having brittle wood or weak crotches, as the soft or common Red Maple, the Silver Maple and the Carolina Poplar, are much more liable to this injury than those with tough wood, as the Oaks and Elms, and therefore need much more pruning.

WHERE BIRDS SPEND THEIR WINTERS

INVESTIGATIONS on the status of birds in their winter homes have been undertaken by the Bureau of Biological Survey in connection with administration of the treaty with Great Britain for the protection of birds migrating between the United States and Canada. That many of these birds winter in South America may be surprising to some, but it is known to be the case. Valuable material collected by Dr. Alexander Wetmore, of the survey, who recently returned after a year's absence in Argentina, Paraguay and Uruguay, during which he studied the status of our migratory birds in those countries, will throw much light on the subject.

Among our more familiar birds that Dr. Wetmore observed in South America was the well-known barn swallow that ranges with flocks of native swallows in open country. Many of the species encountered were shore birds found through the marshy pampas or on the coastal mud flats; some were found to winter well north in the Tropics and others to travel as far south as the Straits of Magellan. Among our game birds seen in Argentina and elsewhere were the golden plover and pectoral sandpiper.

That Federal protection of migratory birds is proving a success is recognized by the majority of sportsmen and nature lovers. Ducks, geese, and other migratory game birds have not only increased in number, but have reappeared in sections where they had not been seen for many years. Recently there have been a number of inquiries as to the possibility of arranging treaties with countries in Latin America for protecting migratory birds, similar to that with Great Britain. One of the objects of Dr. Wetmore's trip was to secure information as to the feasibility of such action.

THE BARNEGAT SNEAKBOX

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—[EDITOR.]

SO many amateur builders have asked for some dope on the old sneak box that we have jumped without preliminaries from the flat to the round-type of boat in our aim to please. By departing somewhat from the usual construction there will be little difficulty for the man who has already built one of the flat-bottom craft.

The boat shown here is a development of the original sneak box which was purely a hunting-boat to which in time a sail was added merely for ease in getting to the shooting-grounds. The boats of later years have had more attention paid to their sailing qualities and many of them have never been used for anything else; several yacht clubs even have special racing classes for them. The boat here offered is of this type with additional depth enough so that one can tuck his legs under the deck, make up a bed on the floor and spend the night aboard.

I have cruised many hundreds of miles in just such a boat and would cheerfully start off for a week or so in this one. Possibly I would spend more thought on the equipment because I think more of comfort now than twenty years ago, but we'll leave the matter of equipment until we have built the boat.

First we'll need a plank for a building form, which should be 2″ by 8″ by 14 feet. Also a couple of extra pieces to pad up the ends. Then we will want a straight grained strip of yellow pine or spruce ½″ square and 16 feet long; and another one about ¼″ square and six feet long. Be sure one edge of the plank is straight and square a line across it at every foot. Call one end 0 and number the lines, the other end of the plank being 14. Set off on each line the distance as marked in Fig. 1 which also shows the filling pieces at ends of the plank.

Now with some slender brads nail the ½″ square strip (which is called a batten) to the plank so that one edge of it touches each of the points. Stand off and look at it from each end and if it seems to be a smooth curve draw along the edge. If a hump shows anywhere take it out, even if you have to move the batten away from one of the points. There will probably be less than an eighth of an inch error and it may be that by setting the batten a little above one point and a little below the next there will be less than a sixteenth error. This is up to your own eye and care should be taken to get it right.

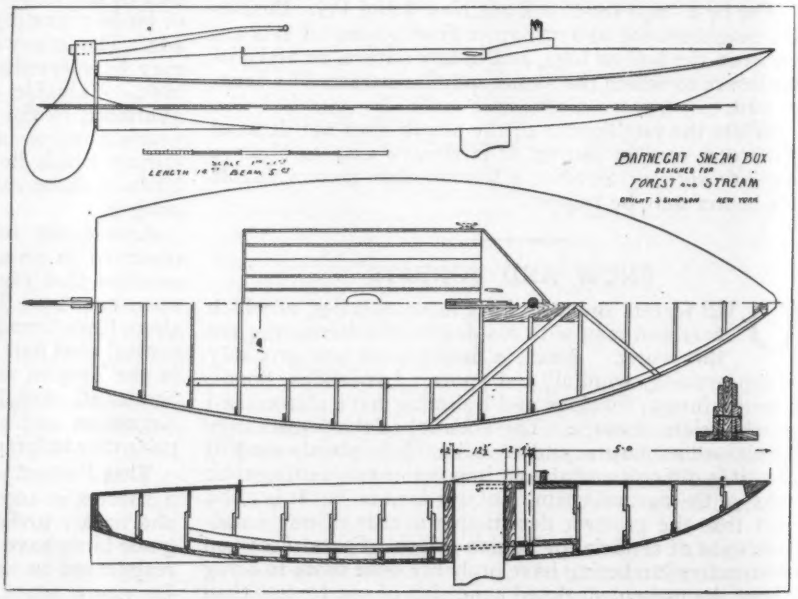
When it is right, remove the batten and cut the plank down to the line, cleating the end fillers solidly in place. The plank will then look like Fig. 2. This is next to be firmly fastened about 2 feet above the floor somewhat like a sawhorse as in Fig. 3 and is now called the building stocks. When set up, the lower line of the plank should be level and we are ready to go ahead with some of the actual boat. The first piece is the keel.

This is made from an oak plank ⅝″ thick, 5″ wide and 16 feet long. If you cannot get white oak, yellow pine is next best. Strike a center-line with a chalk line and draw it in with pencil; then lay out the lines as shown in Fig. 4 and cut the keel to shape. Cut carefully the two mortices for the posts of the centerboard case.

Next comes the sternboard or transom, made from ¾″ oak and laid out as shown in Fig. 5. This is fastened to the keel by the oak knee shown, the bevel of which should be taken from the stocks, so that the transom will stand plumb.

The nose piece is the next problem and should be cut from a good solid chunk of oak, about 8 inches wide, 3 inches thick and 7 inches long. Fig. 6 shows several views of this. It is to take the fastenings of the various pieces at the bow and hold them together. The rabbet takes the keel, the first two planks and the deck. The exact shape of the round at the end is unimportant. Suit yourself.

WE are now ready to get out the frames and we start by making a set of paper patterns. Get some sheets of fairly heavy cardboard which comes 28 inches by 36 inches or thereabouts.



Now look over the little table given in Fig. 7 which furnishes all the dimensions for laying out the frames. For the benefit of those who know something about boatbuilding, I will say that this is

not a table of offsets but is especially arranged for those who don't know. Fig. 9 shows how it is used.

We draw a centerline near one edge of the sheet of cardboard, and measuring 6 inches, 12 inches, 18 inches and 24 inches out from the centerline, draw lines parallel to it. Near the bottom draw a line cutting them all and perpendicular to them which makes the baseline. Now let us draw Frame No. 7. Looking at the table we find Frame No. 7 is 2½ inches wide at keel, so we lay this off from the centerline along the baseline. We find that at six inches out it is ½ inch high, so we lay this off from the baseline along the six-inch parallel. At 12 inches out it is 1 5/16 inches high, at 18 inches out 3 inches high and at 24 inches out 6 3/16 inches high, so we lay these off on the proper parallels. Then we find that it is 30 inches wide at the rail, so we lay this out along the baseline and from this point we lay out the height at rail which the table says is 12¼ inches. We now lay our ¼-inch square batten on the points and if fair draw in the line. Hold the batten either with weights or nails.

This is the shape of the outside of the boat at this point and we must allow for the plank which is ⅝ inch thick, so we lay off this distance all along the line and draw in another curve, remembering that the inside of the keel is straight and parallel to the baseline. Now our frame is to be 1⅛ inches deep, so we lay this off and draw it in. In this case we continue the curve to the centerline as it is not wise to leave a sharp inside corner to the frame as it makes a fine place for it to break.

By moving up a few inches and drawing another baseline there is room to lay out another frame and we continue until we have patterns for the whole thirteen which we can then cut out. The frames themselves are cut from ¾-inch thick oak with as much long grain as possible in each one. There should be two of each pattern. Number them as soon as made so as to not mix them up.

We next require a floor timber to connect the two parts of each frame. A pattern for this can be drawn from the frame pattern, reversing it for one side. The top is flat and parallel to the base and the depth about 2¼ inches at the centre. The longest will be about 40 inches and the shortest about 8 inches.

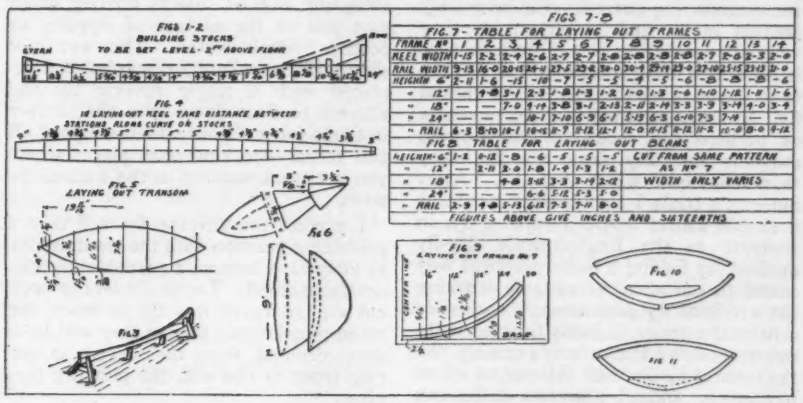
The table in Fig. 8 gives the shape of the deck beams and is used in the same way. Beams No. 7 to No. 13 are cut from the same pattern and vary only in width. They are the same dimensions as the frames, i. e., ¾-inch by 1⅛ inches. The table gives the shape of one side of the beam, but the pattern should be drawn so that the entire beam can be cut in one piece.

When all the pieces are cut we are ready to put them together. Fig. 10 shows all the parts of one unit and Fig. 11 shows them put together. The floor is screwed to the two parts of the frames and the deck beam fastened to the ends of the frames. Before putting in the screws lay the parts together and check them for width and height. You can lay out a baseline and centerline on the floor to aid in this work.

We can now clamp the keel temporarily in place and fit the bottom pieces of the centerboard casing. These must be shaped so as to fit tightly to the keel and should be fastened through the keel with long screws. A piece of cloth soaked in thick wet paint laid between them and the keel will make the joint tight. The posts should also be laid in thick paint and the whole outfit well fastened together.

While the keel is on the stocks the transom and knee can be checked up and the forward end cut off to fit the nose piece, after which take down the keel and fasten all these parts together in wet paint.

NEXT the keel can be fastened to the stocks with some heavy screws or lag screws (don't forget to plug these holes when you take the finished hull off the stocks) and we are ready to set up the frames. Take No. 7 and set it roughly in position with the floor side toward the stern. You will note that the botom has to be beveled off a bit so that the frame can rest on the keel and stand plumb. Then try it again. It should be square to the centerline of the boat and the centerline of frame and keel should coincide. Fasten it with two screws through the keel into the frames. Next it should be leveled up so that the rail heights are the same level line. A shore or short stick nailed to the frame near the rail and to the floor will hold this. Fasten the forward frames in the same way. The after frames differ in that the floor side faces forward.



The centerboard will interfere with one frame which will have to be cut out to slip over the case. It is fastened through the keel like the others and also fastened to the case by corner blocks.

It will stiffen the skeleton if we screw in the stringers outlining the cockpit, which are ⅝-inch by 1½ inches. Their location is shown in the drawings. After this we can plank up the hull.

The planking is ⅝ inch thick, cypress, cedar, or pine. We need two planks 8 inches wide and 16 feet long. We clamp one of these temporarily to the frames against the keel. Note that it does not touch the keel except at one or two points, so set your dividers to the widest open space and mark this off on the plank at each frame. Then take off the plank, run a batten through the marks, cut it out and try the fit again. When you have a good fit, lay off the plank to about five inches wide at Frame No. 7, two inches wide forward and three inches at the stern. Lay on the batten, mark and saw it out. Try the plank on the other side and if it fits, cut the second like it. Screw to the frames with three fastenings in each.

The next plank must be fitted in the

(*Continued on page* 554)

LETTERS, QUESTIONS AND ANSWERS

DOWN-STREAM WITH "REVERSE" DRY FLIES

Dear FOREST AND STREAM:

AT the end of my article published in April FOREST AND STREAM it was stated I would briefly describe the new "Reverse" dry fly which I invented for down swift stream fishing to obviate the many difficulties experienced in casting up-stream in our rough, tumbling waters —an absolutely foolish method—blindly copied from British anglers whose fishing is done on streams of an entirely different character than our own.

In the many pools of rough water that form conflicting currents that invariably contain more, and larger, trout, they very often defy our best efforts, because it is hard to make successful casts to the exact location of the fish with a cocked fly. In some parts the water is too deep, or perhaps too rough, or swift cross currents instantly drag the fly away from the spot where fish lie. After numerous trials I found out it would be a simple matter to tie a reverse fly, in contrast to the English-made dry-fly method, by fishing a more practical way suited to our own streams, by working the artificial fly downstream, cocked in a natural manner, jauntily floating without drag, down the runways exactly like the natural insect with little or no effort in casting. Indeed, a perfect duffer can just drop it on the surface and let it float along till grabbed by the fish.

It was obviously impossible to do so with the regulation dry-fly as now tied, which would, of course, float tail first, or backwards, down stream. I conceived the idea to tie a reverse dry fly—that is, with head tied over the bent shank of the hook instead of being tied with the head at the hook eye, so that neither angler or fish could tell the difference from the regular dry fly, except that it floats down stream head first like the natural insect, which the dry fly does *not* when *cast* upstream.

When using the reverse fly, it is not necessary to make a long cast. It can be dropped lightly on the water, then let out sufficient line to enable it to float free along the water flow, carefully guiding it over where trout are feeding, or supposed to be.

At early season, when the water is above normal, with hard heavy wading the down stream reverse method will certainly furnish such easier fishing that a raw amateur will find success.

The conservative dry-fly expert may perhaps be at first doubtful of this new theory, but if he will tie several of his favorites and make a trial under the conditions here suggested, it will prove a revelation to him which it has already done to the alert and discriminating anglers of the middle and far western States who are unstinted in praise of the method. It is not intended, nor is it wise to discard the regular dry fly for the reverse, but simply use it in certain difficult situations. Such situations in wet fishing down stream when you see an abundant rise of insects floating down past you on the surface of rippling or perhaps rough water. The wet cast should be immediately discarded and replaced with a single reverse fly and allowed to float down over the surface in front for a distance, then whipped off and recast—working it to places where you see trout sucking in the natural insects.

I predict the reverse fly will take a prominent position with the trout angler, to afterward become a permanently successful method. Tackle dealers at present do not carry this fly in stock, but when they become known they will be in great demand, from the success in getting trout to rise and the pleasure they give.

The four patterns I have tied are the Shadfly, Cowdung, Yellow Sally and Marsh Brown, which are quite sufficient to use for the first half of the season. Specimens of each pattern can be had from the writer for anglers to copy or they can make any favorite fly to suit their fancy.

LOUIS RHEAD, New York.

SIMPSON'S SHACKBOAT

Dear FOREST AND STREAM:

PERMIT me to remark that the "shack-boat" described by Mr. Dwight S. Simpson in your September issue would be practically ideal for tripping the great southern rivers. The model is very nearly that of the "jon-boat," with the cabin added. A boat like this would, I know from experience, do finely on such streams as the Tennessee (and on the lower Clinch, Holston, French Broad, etc.), and many a river-man has come down the Lower Mississippi in a far less trustworthy and comfortable craft.

Any one desiring to trip the great tributaries of the Mississippi might well consider this shack-boat craft. With an outboard motor it should be an interesting lake boat, though decidedly too interesting in wide, windy waters.

Most ideas on house-boats are on too grand a scale. Twenty-four feet is long enough for river tripping, and many a shanty on the river was on a 16-foot scow hull. Streams like the Red, Arkansas, Yazoo, Cumberland, Tennessee, Missouri, Wabash, Ohio, and I don't know how many others offer wonderful and inexpensive trips to those who discover them. The trips down the Tennessee and Mississippi, which I made for FOREST AND STREAM twenty years ago remain vivid and delightful memories, and my wonder is that more sportsmen do not undertake weeks, or months, even full seasons on our long and remarkable streams.

RAYMOND S. SPEARS,
New York.

WHAT DID HE SEE?

Dear FOREST AND STREAM:

WE had been still-fishing all morning on an inland lake and had caught no fish. Overhead the clear blue sky was giving place to a few scurrying wisps of storm cloud; we knew that rain was not many hours off. At someone's suggestion we pulled up anchor, reeled in our lines, and started trolling in a circuitous homeward journey. The faint lapping of the water against the sides of the boat, the droning of insects in the trees and grass inshore, and the indescribable hum of some distant and unseen machine lulled us into a drowsy state, and we gazed idly at the wake of our boat or about the landscape at the rapidly darkening foliage; all nature was adrowse. Suddenly, as I leaned over the side of the gunwale, I caught a glimpse of bottom and several sleek bass and I gave a subdued and quick order to back water and to come to anchor.

Every fresh-water pond has its "hummocks," as we call them—shallow, undulating back-water acres that become partly dry in August until the lush grass appears above the surface and the sandy or gravelly bottom is easily visible. It was in such a spot that we suddenly and quietly came to anchor. Naturally we began at once to rig our bait-casting rods and our fly rods for a little sport. I began casting and recasting, but without the least luck, and, becoming by that time somewhat lazy and indifferent, I again leaned over the gunwale on the shady side and looked down to see what had become of the fish I had seen, and continued gazing down into the clear waters and watching the clear bottom sparkling with white sand and shining with brilliant green grass and other vegetable growth. All of a sudden I caught sight of a large black bass motionless,

except for the swift and almost invisible flipping of his lateral fins or flippers—hovering without motion above a circular concavity in the sand in which rested several smaller and very youthful offspring. The nest, if it can be truly called a nest, was about one foot in diameter and not over two inches deep at the center, at most a shallow saucer of spotless sand in which hovered, like their parents, the small fry.

Having been a hen fancier I argued by analogy that this sandy concavity was a bass's nest; and certainly would have convinced my companions, who were now quite aware of what I saw, of the correctness of my conjecture, had I been able to point with triumph at eggs in the nest and a bass cackling with pride over her achievement.

In sober truth I confess to having seen this unusual sight; but for the life of me I know not the exact nature of what I saw. My companions will swear to having seen what I describe, and to having seen independently several other "nests" and their families. Now, FOREST AND STREAM readers, WHAT DID I SEE?

G. E. JENSEN,
Conn.

OVER THE SHOULDER

Dear FOREST AND STREAM:

ACCOUNTS of foxes running off with back loads of game recently published in FOREST AND STREAM recall one of my earliest of memories. It must have been all of sixty years ago that my grandmother at the farmhouse in Connecticut suddenly made an exclamation which took me to the window in a hurry.

A red fox was running toward the swamp with a goose thrown over his back, his head turned somewhat to the left side as he held the neck of his quarry, while the body of the goose rested at an angle across his back in such a way that it was probably off the ground for the most part. At any rate it was not underfoot and the fox was making off at a fairly good pace on second speed. Geese and foxes average about the same in weight.

The kitchen door was opened promptly and the farm dog rushed after the fox with the effect of making him drop his load. Tooth marks of the fox as I remember were found at the junction of the head and neck of the goose.

While we are on the subject of foxes an occurrnce of two mornings ago may be worth relating. In order to avoid the softening effects of city life I like to run down for a jump in the river on my country place in Stamford, Conn., about six o'clock in the morning. The stream is at the foot of the lawn about fifty yards from the house. My ducks were not far away on a little island as Billy Airedale and I ran down across the lawn.

After taking a plunge and quickly getting out, meanwhile making remarks appropriate to frosty weather, Billy Airedale suddenly jumped toward a little hemlock tree at the foot of the lawn with a loud bark. Out bounced a big red fox that floated away across the garden like a sailing bird. He had doubtless been watching the ducks and in all probability his sense of humour prompted him to remain in the hemlock only a few yards away when he saw that Billy Airedale and I were not thinking of foxes and were evidently not after him as we ran across the lawn. I don't doubt, however, that a pair of very sharp eyes and a sharp nose had been aimed very directly at me all of the while.

ROBERT T. MORRIS,
New York

RECORD STURGEON

Dear FOREST AND STREAM:

THERE is a report in this locality that there have been sturgeon caught in the Snake River, Montana, that weighed as high as 1,500 lbs. Kindly tell me if you have any record of a fish of that size caught in a fresh-water stream. Thanking you for any information you can give me, and best wishes for FOREST AND STREAM.

R. C. HURLEY, Montana.

A 1,500-lb. sturgeon is not an impossibility, but the largest American sturgeon of which we can find definite record weighed 1,000 lbs. It measured 10 ft. 5 in. long and was taken in the Columbia River in 1911. [EDITORS.]

TOO MANY SMELT

DEAR FOREST AND STREAM:

SEVERAL years ago Onota Lake, Pittsfield, Mass., was stocked with landlocked salmon. At the same time a quantity of smelt were also introduced to serve as food for the salmon. They probably did while the salmon lasted, but the latter also proved to be an ideal food for the pickerel already in the lake so that no sportsman ever made a catch of salmon. In the meantime the smelt multiplied enormously so that although there are many pickerel, large perch and large-mouth bass in the lake to-day they are so "fed up" that it is almost impossible to catch a worth-while mess of any kind of fish.

The state fish and game commission therefore allowed the local Angler's Club to attempt the extermination of the smelt. This has been accomplished by taking advantage of the fact that every spring for a period of about one week the smelt run up the brooks every night about ten o'clock for the purpose of spawning. Near the mouth of every brook entering the lake, except one, there was placed a screen which effectively prevented the fish from passing up the brooks to the spawning pools. In this one brook the screens were arranged in the form of a V, with the apex of the V pointing up-stream but left open about 18 inches so that when swimming up the brook all the fish would be forced to pass through this opening. About fifty yards farther upstream another screen was placed directly across the brook, completely closing it, so that all smelt that passed into the long pool between the two screens were trapped. Millions of smelt were thus impounded and dipped out by game wardens who distributed the fish to all who cared to make a midnight trip to the brook. After each night's run the bottom of the pool was raked over to destroy whatever spawn may have been deposited.

A. H. SCOTT, Mass.

THE "BASSINE" STORY

Dear FOREST AND STREAM:

A FEW years ago I had the pleasure of catching in Lake Mahopac two large, small-mouthed bass, one weighing five the other five and one-half pounds. These bass made their home under a launch that was anchored in front of the Thompson House. An incident occurred just after I had landed the last fish about which I told many of my friends, and they have insisted on my publishing the story. Here it is:

Disciples of Sir Isaac Walton, who lived at Lake Mahopac, and those visiting there, would daily try their luck on these two fish without success. Some of the would-be fishermen would lie on their stomachs on the launch for hours, trying to snare or induce them to bite by placing bait in front of them. Others had offered them all the newest and most tempting kinds of bait; in fact, I am told that every conceivable kind of bass bait, artificial and natural, had been offered them, but they still remained in their home unhooked.

I saw the proprietor of the hotel and said to him: "Would the people be provoked if I should catch one of these

(*Continued on page* 556)

In January

The Monster Bear of Alaska, by *John D. Thees*—tells how a record brown bear was bagged last spring on the Alaska Peninsula.—*Hunting and Fishing Presidents*, by *Alexander Stoddart*, gives some interesting sidelights on what the outdoors meant to some of our greatest statesmen. *How Big Fish Should Be Landed*, by *G. Horton Glover*, and *Methods of Winter Fishing*, by *Robert Page Lincoln*, will interest fishermen. *Black John*, by *J. Z. McConnell*, a great dog story. *Where to Go in January*—tells the sportsman what he wants to know. Sixteen additional pages.

RABBIT SHOOTING GUNS AND LOADS

A WIDE, EVEN SPREAD OF MEDIUM-SIZED SHOT IS DESIRABLE FOR SUCCESS WHEN HUNTING THE ELUSIVE COTTONTAIL

By C. S. LANDIS

FOR a good many years past, rabbit shooting has been the principal field shooting where quail and grouse have become scarce, or where they have been placed on the song-bird list. From one to three million rabbits are annually shot in each of several of the more thickly populated Eastern states. They form the principal part of the game-bag for thousands of hunters, yet the idea still persists in many places that anything in the way of a gun or load is good enough for rabbit shooting.

Full-choke duck or trap guns, left over from duck, quail, trap or even

Over the fence to the next field

goose shooting are all turned loose on the inoffending cottontail. The result is often a hard-luck tale about the difficulty of hitting rabbits in the brush, a line or two about blowing two or three of them into shreds and a general howl that rabbit shooting isn't what it ought to be. The reason is rather obvious.

Cottontail rabbit shooting should, from the standpoint of guns and ammunition, be divided into two distinct classes: rabbit shooting with rabbit dogs, and rabbit shooting without dogs. The latter should include all miscellaneous rabbit shooting that occurs while hunting quail, grouse, pheasants, woodcock, squirrels and even ducks.

When hunting with dogs, especially if some of the dogs are fox hounds and are very fast, the hunter will frequently be faced with the necessity of making very long, hard shots across a hollow, along a ravine or possibly across a stream or swamp.

This requires a moderately close-shooting barrel and heavy shot. A charge of 3¼ drams of powder and 1⅛ ounces of No. 4 chilled shot is a great favorite for this style of work in the hills and mountains where I have done most of my rabbit hunting. Unfortunately, the hunter will often kick up a rabbit while moving along after his dogs to save a shot from being taken in by another hunting party, and then his game is usually badly mangled.

A heavy duck load will blow a rabbit all to pieces if it is hit inside of 15 yards, and up to 25 or 30 yards the leg bones will be so badly splintered that the best of the meat will be rendered unfit for the table.

A double gun, bored improved cylinder right and three-fourths or full choke left and loaded with No. 6 or 7½ chilled shot in the right barrel and 5's or 4's in the left, is a good combination to use with fast dogs. It takes care of both the close and long shots. A modified choke pump and 6's is about as near as we can come to it with a single barrel.

THE beagle hound is to my mind the ideal rabbit dog. The rabbit seldom runs very far ahead of a beagle, most of the shots are between 25 and 45 yards, and the game is generally cleanly killed after providing the maximum of sport—and noise. Of what use is a fire without a general alarm and a mad race of the city's whole fire department? With a beagle, ideal rabbit shooting conditions are provided. Moderate range, a swiftly-moving mark and you know about when to look for it.

An improved cylinder and strong,

Read this article carefully. It contains some practical advice that will change that "tough luck" alibi you have been in the habit of framing up to tell your friends while you were walking home after a long day afield in quest of the alert little cottontail.

modified double or a modified choke repeater loaded with 3 or 3¼ drams of smokeless and 1⅛ ounces of No. 6 shot make the ideal combination. Of course, there are a few extra long-range shots and a few close-range shots at rabbits that were almost stepped upon, but the average is just right for 6's. The moderately wide, evenly-distributed pattern of the modified choke, when filled with 1 or 1⅛ ounces of 6's, is just right to make the proper distribution on a rabbit which ordinarily presents a vital mark about 6 inches long by 4 inches high.

While a couple of slow-working, howling beagles provide the maximum excitement in rabbit shooting, still the man who hunts them without a dog has his share of fun. For one thing, he gets a better idea of what constitutes a "dog's life" after he has tramped the briars and brush for a couple of days than he ever had before. He probably gets more fun out of the actual shooting when it occurs unexpectedly and suddenly than when much of it occurs after

(*Continued on page* 569)

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DUCKS IN OLD RICE FIELDS

(*Continued from page* 533)

marsh, however, soon opened before us. Pulse-stirring sounds, moreover, were borne to me over the grassy bank. A lusty old mallard was warning his companions of my approach. He told them, I know, that trouble was brewing for the Salt Pond ducks that day. Then, to show them that he, as least, had no idea of furnishing any of the amusement, he rose with a noisy clatter of wings and left for parts unknown.

We hauled over the bank a little further on and there was our pond. Sam, accustomed, of course, to the sight of many ducks, seemed unmoved by the picture before us. I might exaggerate if I said there were a thousand ducks in that little pond; again I might be falling short of the number. At all events, there was a downright *heap* of ducks. Our blind lay on the opposite bank—easily reached from the check-bank, so I made my way around on foot, leaving Sam to pole the skiff across.

It had been a long paddle and we were somewhat late. Already Brayton had opened the ball. Chapman and Spears had doubled up this morning and were carrying on a fusilade at the other side of the marsh.

Many of the ducks we had moved from our pond were still sailing about in detached bunches. I could, I am sure, have made a very decent bag on my walk around to the blind. The flocks were, for the most part, too large to shoot into, however, and I steeled myself to patience, waiting for Sam and the decoys.

Would he never come? Was I to tramp up and down that bank indefinitely, with the banging of other men's guns in my ears and myriads of ducks passing over my head? At last! the swish of the paddle, the crackle of crushed saw-grass and Sam heaves in sight around the bend.

Out go the decoys; first the wooden ones, then a half dozen live mallards, tugging fiercely at their anchors as Sam drops them overboard. I note that Sam keeps one eye on me as he hurries with the decoys, and I reassure him somewhat by standing my gun in the corner of the blind while he finishes setting out.

I early found that Salt Pond was, for that day at least, distinctly a mallard rendezvous. Other varieties of duck, sprig, gadwall, now and then a spoonbill or blue-wing, passed by the edge of my blind; but invariably they had business elsewhere and merely gave my layout a good look over. But, ye gods! the mallards! How they poured into that pond! By the time our stage was set and ready, a great number of ducks had already settled at the farther end of the open water. These I made Sam rout out at the start. They swept over me, past me—almost through the top of my blind, and I will always recall, with a certain satisfaction, that I let that avalanche of mallards pass over me without raising gun to shoulder. "Don't shoot into the big hunches"—had I been stupid enough to want to, the unwritten law of the Merry Bell marsh must have stopped me, after all. My reward came quickly. In my "duck diary" I have written the epitaph of three mallards in these terse terms:

"3 Mallards. Right and left—loading and dropping third with choke bl. at 60 yards."

The way of it was this: I turned my gaze from the great flock, now far across the marsh, to find three big mallard drakes directly over the decoys.

Before I could reach my gun one of the trio had lit almost at the foot of the blind. As I rose, the other two swerved, up and off, at a most disconcerting angle. Now, remembering that old greenhead in front of me, I know I hoped to get those two ducks with my first barrel. I must have hoped to—but did I do it? I did not. A right and left, however, brought them somersaulting down into the maze of saw-grass behind me. Then, rocketing up within a yard or two of the blind—so close that I could almost have touched him with my gun muzzles—the third of our little party. I know I could have lost but scant time in opening my gun and jamming a single cartridge in the chamber. I know, too, that that frightened mallard was perilously near the limit of range when I drew down on his white tail feathers. "There! Got him!" I'm talking to myself. "Pretty good, if I do say it. P-r-e-t-t-y good!" I'm vain enough to wish some appreciative sportsman could have seen that bit of marksmanship. After all, it wasn't so hard to get 'em if you knew *how.*

Oh pride, pride, that goeth before a fall! I am crouched in the front of the blind again. There are ducks to the right of me, ducks to the left of me. They are slanting down to the decoys from either side. That pair on the left are over first, my best chance. I have already counted them in with the bag. Practically speaking, they are mine. . . . But I pause to explain that there is a certain peculiar shifting motion which a duck will sometimes make. It's something between a spin and a glide—every duck-shooter knows what I mean—and ducks that have acquired this little trick make disappointing targets. Strangely enough, my mallards had *both* learned it, and naturally—Well, doggone it all, I missed them! (- - -! !- - -! !- - -!) Further talk, addressed to myself. Promises that this sort of thing shan't occur again; business of reloading and getting ready for what next may come along.

"Scape! Scape!"—alluring note, soft voice of the marsh at break of day. "Scape!" that brave little challenge; and straightway a tiny whisp of brown, diving, dipping—lost in the shrouding willows. I was tempted to try a long shot at that snipe; glad the next moment I hadn't, for he appeared to herald the return flight of ducks to Salt Pond—a flight that I shall remember for many and many a day. Never have I seen ducks decoy better; never had such

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Brant Large Ducks	3¼	1-⅛	2¾	1	2½	⅞	4 in flight 0 over decoys
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Small Ducks Pheasants Pigeons Doves	3¼	1-⅛	2½	1	2¼	¾	7½
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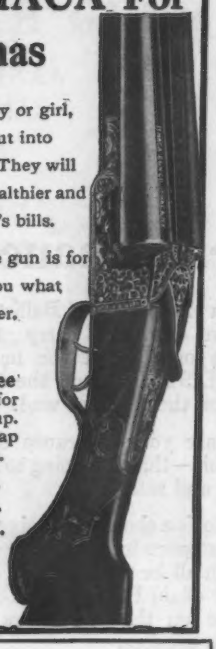

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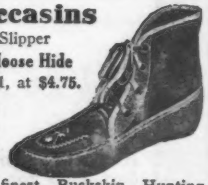

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opportunity to pick and choose my shots.

A stiff breeze had sprung up and the bulk of my ducks, coming in from the windward end of the pond, would sail past the decoys on the far side, swing into the wind again and come floating up to me on almost stationery wings. I don't want to give the impression that I took only the easy shots. Now and then there would come a chance at ducks passing down wind and I am here to state that any duck with a thirty-mile wind behind him and the sight of a levelled gun to urge him onward, is far from an easy mark. I verily believe some of those ducks, killed dead in the air, sailed eighty yards before they struck the water.

But mallards, mallards, mallards! It passed my understanding to see only mallards, with just an occasional black-duck or two, when I knew the marsh was alive with ducks of other kind.

I had learned my lesson on that first day in the old rice field. To shoot is only half the fun of shooting, and I found enough pleasure in just watching many of the ducks as they dropped in to my decoys or swept over on the wings of the gale. Oh, I shot at enough without doubt or debate; at times badly; again with a degree of success that made up, in part for the failures.

IT blew harder and harder as the morning wore on. A heavy bank of cloud was rolling up from the eastward, promising rain and plenty of it before we could pick up and start for home. I thought of Sam and the long stretch of water between us and Merry Bell. Getting in the decoys should be short work, so I fondly thought, and we would get under way, perhaps, before the heaviest of the rain.

I have a notion that Sam, despite my near bombardment, had spent the morning in uninterrupted slumber. At all events, I nearly shouted my lungs out before I raised him from the bank and a steady downpour had set it by the time he had hauled across and begun to take in the decoys. The wooden ducks were stowed aboard; one or two of the callers. Sam was speeding operations, grabbing a reluctant mallard, detaching its cord, pushing it into the coop.

There was a flutter, a splash, and—"Dar! Done bus' her string an' *gone!*" And she had. Ten feet from Sam's outstretched hand, and fast increasing the distance, one of those mallard ducks was swiftly paddling toward the further end of the pond. "Lor'! how I gwine ketch her now?" I looked at Sam and earnestly yearned to tell him. What we did do was to chase that doggone duck for something like one hour 'round and 'round the pond. A dozen times we were near to having her cornered in a pocket of the marsh. Sam, armed with a forked stick, would creep up within reaching distance, then attempt with a sudden lunge to pin her down in the shoal water. Flip!—she had dodged adroitly, leaving Sam with a boot full of muddy marsh and murder in his heart.

Art and subterfuge alike failed of the desired result. We were by this time drenched to the skin, discouraged—*desperate*. Sam waded ashore. He was "gwine cut him a sure 'nough willer"—something in the nature of a flail, I gathered, with numerous branches that would spread over a whole flock of ducks.

He had scarcely reached the line of willows when Miss Mallard edged gingerly up to the boat, cocked her eye at me hunched up in the after-end, and with a hop and a flop tumbled over the gunwale and settled comfortably down by her coop. With the stealth of an Apache, I crawled forward and reaching under the seat seized that pestiferous duck by the neck.

Eureka! "Sam," I yelled, "I've got her! Never mind your tree." Only once on the long pull home did Sam make reference to our weary chase. "Sure did ac' mean." "Who?" I asked innocently. "Dat ol' fool duck." After that silence, and the steady dip of our paddles as we made for Merry Bell.

There was a day at "Big Broughton," where, reversing my experience at Salt Pond, sprig, teal, black-duck and gadwall, as well as mallard, went to the making of my bag. A wonderful day when Chapman and I doubled up in one of the house field-blinds and took our toll of sprig. How they flew that morning! How clearly they stood out against the morning sky! I see them yet—swerving down at sight of the decoys; circling, breasting up, at length to meet our hail of lead. Did we miss an easy one?—turn about the next moment and pull a clean right and left out of the very clouds?

Oh, well, in time we'd go over it all again, sitting before the Merry Bell fire in a delicious semi-doze. What better, indeed, can life offer than a duck-shooter's happy dreams! Dreaming, we shoot our ducks over and over; good days and bad; they come back to us out of the joyous past.

THE BARNEGAT SNEAK BOX

(*Continued from page* 545)

same way. A fourteen-foot piece will make it. We note, however, that there isn't much of anything to fasten the forward end to so we fasten in a piece on each side from the nose piece to Frame No. 5. To get the shape of the piece the rail half-breadths must be laid down on the floor and a curve run through them. Then make a pattern for the piece 1½ inches wide and cut it out of ¾-inch oak. It should be notched into the nose piece and frames and when beveled off will make good holding for the forward ends of the planks. The after ends all land on the transom.

After the bottom is planked, we can finish up the centerboard casing and fasten in the mast step. Put the partner in and be sure the hole for the mast is round and right over the step. The diagonal straps are to keep the hull from twisting out of shape and are let into

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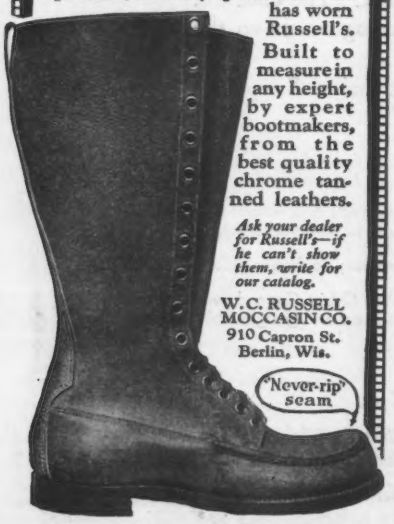


the deck beams. They are of iron, 1/16 inch by 2 inches, and are fastened to each beam with two screws. To make a good job, they can also be screwed to the decking.

The deck is made of the same stuff as the bottom and runs straight fore and aft in as wide boards as you like. A fine job will be made if the deck is covered with drill laid in wet paint. The edge should turn down over the rail, be well tacked and covered with a half-round. A little piece of brass will serve across the nose piece and a brass ring around the mast hole.

The cockpit combing is fastened in with brass screws to deck and stringer and across the beams.

We can now take the hull off the stocks, and, turning it upside down, smooth it off with plane and sandpaper, calk and putty the seams and paint it. It should have at least three coats of paint inside and out. I would suggest grey inside, white outside on the bottom and a buff colored deck.

The floor boards are ½ by 3-inch pine or cypress screwed to the floor part of the frames, with ⅜ inch space between them. The hole cut out of the middle is for the bailing can and sponge.

Next month we will make the fittings, sails and talk over the equipment.

DWIGHT S. SIMPSON,
New York.

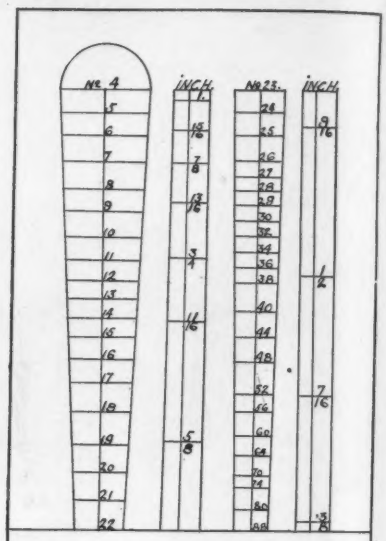
SHOTGUN GAUGES

RECENTLY we have received a number of inquiries concerning the gauge of a shotgun, the questioners sending in the diameter of the bore in inches and requesting the gauge. Most of guns referred to were muzzle-loading, made when makers apparently did not have any special set of gauges that they manufactured. For example, a great many muzzle-loading shotguns are 11 gauge and 13 gauge, something unheard of in a standard shotgun of today.

Gauges and calibers are entirely different terms. The diameter of all American rifles are given in decimals of an inch and this designation has been called caliber, a 30 caliber meaning that the rifle has a bore 30/100 of an inch in diameter. On the other hand gauges were not measured in inches but had their origin, in muzzle-loading days, from the number of spherical balls of lead to the pound, the balls of such a diameter as to just enter the muzzle of the shotgun. The diameter of all gauges, then, comes to us from the fact that a certain number of lead balls weigh one pound. In the twelve-gauge, twelve lead balls whose diameter is equal to the diameter of the muzzle weigh one pound; the diameter of a lead ball, sixteen of which weigh one pound, gave us the sixteen gauge, etc.

The diagram shown will give you a sufficiently close approximation to the gauge if you know the diameter in inches, or vice versa; if you know the gauge you can find its approximate diameter in inches. The gauges are numbered from 4 to 88. To the right of each gauge column you have the inch column given in fractions.

To show how it works, let us assume we know the gauge of our gun and desire to know what its diameter is in inches. Take, for example, the 28-gauge shotgun. Lay a ruler on the line 28 on the gauge scale and note where this line extended to the right strikes the inch



SCALE FOR FINDING GAUGES IN INCHES.

scale. At once we see that our gauge is between 1/2 and 9/16 of an inch in diameter. On closer inspection we see that our 28 ga. line divides the distance between 1/2 and 9/16 approximately 3/5ths of the distance above the 1/2. This space between 1/2 and 9/16 represents 1/16 of an inch. 3/5 x 1/16 = 3/80; therefore 1/2 plus 3/80 = 43/80 inches, which is the diameter of our bore. Reduced to a decimal fraction 43/80 is equal to .54 (This is very close to the true value, .55).

Now assume that you have run across an old shotgun the diameter of which at the muzzle is 69/100 of an inch, and you want to know its gauge. On the inch scale we find that 69/100 is just a hair over 11/16, so that for our purpose we can accept the gauge nearest to 11/16. Extend the line 11/16 to the left until it cuts the gauge scale and we read the nearest gauge which is 14.

[EDITORS]

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THE "BASSINE" STORY

(*Continued from page* 547)

fish?" He said: "Come on and show them how to catch them."

I have told the story of how I caught them in an article written for FOREST AND STREAM under the title of "Two Wily Bass." I shall have to crib some part of the story in order to describe how this incident occurred.

My scheme was to arrive at the launch while all were at lunch and the waters quiet and less commotion going on around, thus giving me a better chance for fooling the wily bass. I made up my mind that they might take a very active and good-looking tiger frog, which was not cast right at them, but, as stated in the story, over some grass about ten feet away from the launch. I had noticed that these fish would disappear from under the launch and then return as if they had procured something to eat. They did not catch any food under the launch, but would go out and get their food and come back and digest it in their resting-place.

The first cast I made did not produce any result; and the second cast I hooked the five-pound fish, and after a nice fight landed him.

To my surprise I found that the hotel dining-room had been emptied and I had a big gallery. And then a fleet of rowboats and fishing boats got busy and headed for the launch. All those who had frogs, artificial or otherwise, were anxious to be the first to throw a bait to the bass that were biting at last.

At the request of the proprietor and some of the hotel guests, I rowed ashore to let them see the fish. Then they wanted me to go out and have a try at the other fish, but by that time there was such a circus going on around the launch that I decided to wait and watch the fun —the tangling up of lines getting hitched to the launch and all sorts of difficulty.

There was a guide of some note there who had taken a sportsman out fishing. They had arrived at the dock at the time I hooked the bass. The guide rowed him out to the launch, being the first to arrive, and he took the position that I had had to try his luck. It is needless to say that his efforts produced no results. After the sportsman and his guide were tired and disgusted and anxious to have their lunch, they gave up the position I wanted, after being urged by all to go out and see if I could catch the other fish.

I had my man row me to the exact position where I made a cast, not at the launch, but behind the boats that were anchored around the launch. First cast, nothing doing! I cast a second time and said to the rower: "There's something doing! I wonder if I've got the other fish!" As soon as I snubbed him there was no question about it when he came out of the water, and all the fishermen and would-be fishermen stopped to see the taking of the fish. After I had taken the fish into the boat amid the applause of the gallery and exclamations of disappointment from the would-be fisher-

men, I weighed him and found he weighed five and one-half pounds. With four casts and two good tiger frogs I had these two fish! Now, here is where the "bassine" comes in:

A friend of mine was in one of the boats near the launch at the time I was trying to catch the second fish. He raised his frog out of the water and asked me if his frog was not like mine. I looked at it at a distance and said it looked like my frog. He said, "What can be the difference?" I said, "Is it a male frog?" Male h—" said he; "how the d—l should I know whether it is a male frog? Is there anything else that makes your frog different from mine?" And I said: "Have you any bassine on your frog? The druggist down here sells it." He said: "That is strange. He is a great friend of mine and never has told me anything about it." I said: "You go down there and ask him for bassine, and he will sell it to you."

As soon as I rowed ashore the clerk at the hotel asked me what bassine was. I told him to go down to the druggist and get a small bottle of nux vomica and to put some cologne with it to disguise it. We all know that the dropping of strychnine on a frog will make it very active. The clerk did as I told him. He came back with the bottle and said: "Here's the dope called 'bassine' that caught the big fish. Bring on your dopey frogs and I will show you how it works." They brought on their worn-out, half-dead frogs, and they began to jump immediately. Of course, they all wanted to know the cost of the bassine, and he said: "I will sell it to you for a cent a drop. Put a few drops on each of your frogs." The fishermen started out to catch bass with their perfumed frogs. Of course, as soon as they were cast overboard the "bassine" would be washed off.

Many of the boarders were sore because the fish were caught, and they asked the proprietor why he had not moved the launch when he knew I was coming to try for the bass. He said that that would not have made any difference, as the fish would swim to the boat. "Oh, we did not think of that," they replied.

This has been known as the "Bassine" story in that region for a number of years.

Fishing is the greatest recreation man or woman can have in God's domain. Many fishermen fish without the proper study of the habits of fish. The much-talked-of "fisherman's luck" is where the fish comes to a boat and will bite, and everyone in the boat with a line catches fish. If the fish do not happen to come to where the boat is anchored they say they have no luck. How much better it is to know the habits of the fish and hunt for them as the hunter hunts for birds! He does not go into the woods and sit in one place, hoping that a bird will come his way; he covers all the ground in the woods. Why not go all around the lake, find where the fish are and how they are taking the bait; then one is sure of catching some fish.

A. J. Fox, New York.

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THE TROUT OF CALIFORNIA

(*Continued from page* 541)

coming colder day by day. Others, such as the various kinds of Rainbow Trout and Cutthroat Trout, deposit their eggs in the spring of the year when the water is growing warmer.

There is great variation in size of the different species, from the tiny Ayu of Japan less than a foot in length and weighing only a few ounces, to the Royal Chinook Salmon of our northwest coast which attains a length of four or five feet and a weight of one hundred pounds.

OF all the families of fishes, there is none more interesting or more important than the Salmonidæ. To the naturalist, the family is of surpassing interest because, among other reasons, of the remarkable life history of some of the species; for example, there are in this family several species none of the individuals of which ever saw either of their parents or any of their children! A most remarkable fact sufficient for a story of its own.

To the fish-culturist, this family is of the greatest interest and importance because of the ease with which many of the species can be propagated artificially; more species of this family are thus handled in fish-hatcheries than of all other fishes combined.

To the angler, there is no other group of fishes that makes so strong an appeal or that has brought more pleasure to mankind. And to the commercial fisherman, it is by all odds the most important family of fishes in the world, the value of the annual catch greatly exceeding that of any other.

Of all the regions of the world where trout are found there is none more greatly favored than is our own California, whether we consider the number of species represented, the abundance of individuals, their game qualities, the multitude of streams and lakes in which they are found, or the beauty, charm and grandeur of the environment upon which the angler may feast his soul.

There are in California at least sixteen different species of trout, to say nothing of the Sacramento Salmon which may be caught in Monterey Bay, or the several species that have been introduced from other lands.

The native trout of western North America have been regarded by some ichthyologists as falling more or less naturally into three groups which have been called the Cutthroat Series, the Rainbow Series, and the Steelhead Series, each of which has one or more representatives in California. This view is no longer held by students of fishes, yet there is a certain advantage in using the classification even if the groups cannot be delimited.

In a general, broad way, we may say that the species of the Cutthroat group are characterized by their small scales and by the presence of a red or scarlet dash on the jaw. This mark is nearly

always present in the adult and is usually diagnostic. Of the sixteen or more kinds of Cutthroat trout, at least six occur in California. These are: The Clark Cutthroat (*Salmo clarki*), apparently found only in the Pit, Eel, Klamath and perhaps other streams in northern California; the Tahoe trout (*Salmo henshawi*), of Lake Tahoe and connecting waters; the Silver trout (*Salmo tahoensis*), of deep waters in Lake Tahoe and reaching a great size; the Royal Silver trout of Lake Tahoe (*Salmo regalis*), deep blue above, silvery on sides, and with few or no spots on the body; the Eagle Lake trout (*Salmo aquilaruson*), known only from Eagle Lake where it is rare; and the Colorado River trout (*Salmo pleuriticus*), known only from the Colorado basin.

All these are fine game fish, the best known and most popular being the Tahoe trout.

Of the Rainbow group about eight species are recognized as occurring in California. They are: the original Rainbow of San Leonardo Creek (*Salmo iredeus*), and perhaps of other coastal streams; the Shasta Rainbow (*Salmo shasta*), from the McCloud and other streams of northern California; the Noshee trout (*Salmo stonei*), of the McCloud and other tributaries of the upper Sacramento; the Kern River trout (*Salmo gilberti*), known only from the Kern River, and perhaps from the Kings and the Kaweah; the Little Kern Golden trout (*Salmo whitei*), from the western tributaries of the Kern; the South Fork of Kern Golden trout (*Salmo aguabonita*), of the South Fork of Kern and Cottonwood Lakes into which it has been introduced; the real Golden trout (*Salmo roosevelti*), native only to Volcano Creek; and the San Gorgonio trout (*Salmo evermanni*), known only from the upper Santa Ana River on Mount San Gorgonio.

Of the Steelhead group only one species (*Salmo gairdneri*) has been recognized in California waters, although it would not be surprising if recognizable differences will be discovered when we carefully compare specimens from widely separated streams, as the Ventura, the Sacramento, the Klamath, and the Columbia. It may well be that we are not justified in assuming that the Steelhead of the Columbia is identical with the Steelhead or Steelheads of California streams.

FISHING FOR BASS ON HORSEBACK

(*Continued from page* 540)

fishing this way," he said as his pony drew alongside of mine. "And the best of it is, a snake has not a chance to get near us here as both of these cracker ponies can smell one a mile."

We finally came to the banks of a typical Florida stream; its black surface fairly shining like polished ebony. My mare did not seem to understand what was going on at first, but she was quick to learn as she had been shot over for several years and was thoroughly broken.

Every Man and Boy Wants this Equipment

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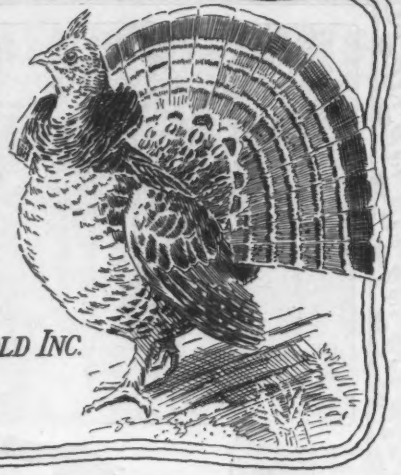

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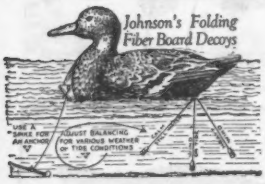

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I put on a green plug and cast into the inky depths which reflected my inverted image. I found it a delightful way to fish, as I could cast over the tops of small bushes that lined the bank, in fact I fished localities it was impossible to reach while on foot. Finally a strike rewarded my efforts and Henry dismounted, helping me to land a four-pounder.

We fished the river thoroughly, and then tried out the more open canals that extended into the West as far as the eye could reach. "Too bad they are not biting today," said Henry, as we only got three more fish. "Will have to try it again," he continued.

We did, also fishing other localities, thus proving this method to be the safest and less tiring way to cover snake-infested, inaccessible places along the miles and miles of rivers and canals of Eastern Florida.

You may ask, "What is the object of fishing such places, or what reward awaits the fisherman who takes such a trip?"

Well! I'll tell you. I have taken large-mouth black bass up to fourteen pounds in these waters, have hooked many larger, have seen one caught that weighed nineteen pounds, and was told of one that weighed twenty-six; so I am after a twenty-six pounder, just to prove the other fellow wasn't a liar. There is a lot of hunting done on horseback. Why not go a-fishing the same way?

THE GREATEST LITTLE GAME BIRD

(*Continued from page* 535)

gether. Their erect forms seeming to glide over the ground without the slightest movement, but once they decide to fly, then they are the fastest short distance travelers that have feathers.. No bird can equal them in making a quick "getaway" from "the scratch."

The notes are many and varied, but from the writer's viewpoint, to describe a bird note in writing, words or scale is not possible. There is hardly a work including the best on North American birds in which the authors have not attempted to write down the sound of all manner of bird notes, and the quail has been cawed, cooed, quacked and whistled in dozens of different interpretations.

My introduction to the call note of the Bob-White is a good example of the fallacy of naming a bird note in writing. The clear, three-note whistle came to me from a wood along a Colorado stream. At first I thought it was an olive-sided flycatcher, but the locality forced me to eliminate that bird; with some deduction I finally reduced it to the Bob-White, but not because of any description I had ever read of that quail's note. Had I been a layman instead of an experienced ornithologist I should have as readily named it Little Bo-Peep as "Oh, Bob-White," for all that the note signified. So, to you who have yet to hear the call of a California quail I will simply describe it as a clear, far-reaching voice of a bird—soprano in quality—of three

intervals, given in one key with the last note slightly varied; this is generally repeated several times. When excited and frightened a succession of rapid clicking sounds are given, and if the birds are not further disturbed the notes become less harsh and are intermittent with low, monosyllable deep-throated notes which would suggest a guarded conversation.

The nesting period begins in April and ends in August, though these months are in the extreme. The large percentage dates from the first of May to July and by September it is rare that birds are seen not in maturity. The average set or lay as given by Grinnell (Game Birds of California) and taken from a great quantity of records is fourteen. About 23 days is the period of incubation, and when the little brown-striped balls of downy vivacity pop from the shells, it is only a matter of minutes when their strong little legs are twinkling over the leaves or carrying them through the great jungles of grasses. The male is quite as important in a parental way as the female and exercises the same solicitude in guarding and caring for the brood as his mate. Indeed, it is a domestic little group that may be seen daintily working its way along the rail fence to breakfast in the flats by the Old Mill Stream. Come upon them of a sudden and presto! they are gone—all but the male parent are silently in hiding. He scolds at you with an air of much anxiety from a nearby tree, then chatters some wise talk to his mate and disappears.

THE food of the quail is largely a vegetable diet, in fact an analysis made by the U. S. Biological Survey of more than six hundred stomachs, disclosed the contents to be comprised of 97% vegetable matter with the remaining 3% animal matter. The latter wholly of insects, the former averaging 62% seeds of various plants and weeds with the balance largely of grasses and a small percentage of fruit, berries and grain. While the above is a normal diet, there are times when they vary in the selection of food. I once secured a number of quail that had been feeding along the crest of an oak-covered range. I was surprised to find them in such a barren looking place to feed, and upon examination found their crops and gullets full of acorns, and of such proportions that I wondered how they had ever swallowed such enormous bites.

The flesh of the quail is of the "white" variety of the most delicate texture, savoury and delicious (contrary to some other opinions) which I might explain is undoubtedly due to the method of cooking.

The breast is full and plump and the legs are well formed and provide considerable palatable meat.

On account of the looseness of the skin and the well set feathers of the quail, with consideration of the size, it is impractical to pluck the bird, as in the dressing of poultry. The customary and preferable way is to skin. There-

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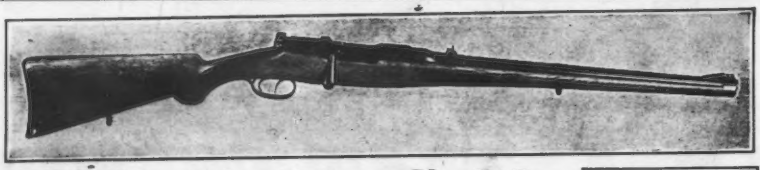

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fore if this delicate meat is put into an open pan and fried, as I have seen it done so often, the body dries out by the time it is cooked through, and the flavor with the moisture has vanished. But if a substitute for the skin is supplied in the form of flour (preferred) or other meal and the bodies are then put into hot butter fat and covered, the result will be a delight to the most fastidious of epicurean palates.

To immerse the bodies in bacon grease or other form of fat, and impale on a green willow stick; then broil over the coals of a camp fire is another way to produce satisfaction. A Dutch oven properly handled in camp insures of the greatest perfection in retaining all the savoury qualities of this game bird as a food.

The enemies of quail are numerous and while the sportsman exacts a heavy toll of their numbers annually, the predacious wild life are destructive to a greater extent than is ordinarily believed.

The Cooper's, sharp-shinned and duck hawks of the birds of prey are the species that may be considered harmful to quail. The first named being the most habitual killer of the three. While the duck hawk is equally efficient as a hunter it is not as abundant over any territory and does not habitually hunt over the quails' domain as is the habit of the Cooper hawk. Never allow this swift-winged, silent traveler and killer of bird life to escape your opportunity to shoot him. He is a "bad hombre" among the game birds and his wonderful flight and sneaky, swift approach to a feeding flock of birds makes it an easy matter for him to fare well, especially in the migration periods, when the birds are congregated in large flocks. It is at this time of year that the open season is on for game birds and all hunters should have a watchful eye for "Cooper." This hawk, the sharp-shinned (a smaller bird) and the duck hawk are easily discernible from the other and beneficial hawks by their swift flight and trim-shaped bodies. The common variety seen along the highways, usually perched high up in the leafless branches of the sycamores and white oaks, are harmless to bird life and should be left strictly alone, as they are beneficial to the farmer, living almost wholly on rodents.

ALL of the smaller carnivorous animals prey upon quail, from the ravaging of the nests to the killing of the young and adult birds. The writer once found the stomach of a skunk containing the shells of quail eggs. A nest of incubated quail eggs with contents about ready to walk from the shell would naturally be a delicate tit bit for Mr. Skunk. From all accounts the raccoon is not a serious menace to quail, though he will occasionally get his hand in for a taste in some form or manner. The little grey fox is a swift, keen hunter and he has the quail on his list with other birds at about an equal percentage. But worst of all the preying element is the Bobcat or wild cat. We will give him

credit for having mice and other rodents harmful to crops on his bounteous menu, but a bird is the morsel that suits his appetite best, and the ground dwelling species, including the quail, are the ones most habitually preyed upon by Bobcats. .No animal can equal the Bobcat as a destroyer of bird life. He skirts the edge of the brush and pounces like a flash upon the little sparrow scratching among the liter; likewise he scans the open glades on hillsides, sights a flock of quail feeding, just out from cover, and then flattens to the ground—his little stub tail twitching from side to side as he stops at intervals to watch the movements of the flock. He gets a bush between himself and his quarry, swiftly crawls to it, and usually there are one or two quail that see too late the flash of the cat that hurtles over the bush into their midst and one of these "Bob" usually gets, with the same agility that you have seen displayed by "tabby" catching a mouse.

It is rare that Bobcats are seen in the daytime and still rarer to observe one in the act of hunting. Several years of field service in research work gave me unusual opportunities to come in contact with such incidents. I have a vivid recollection of once seeing a Bobcat fail in an attempt to catch a quail. Part of a flock of quail I had been hunting flew over to the opposite side of the hill. From the direction and speed in which they scaled the ridge I figured they settled well down in the ravine. Upon reaching the ridge (in pursuit) I heard them clucking excitedly and reasoned that something unusual was disturbing them. Then the cause presented itself in the shape of a big Bobcat. He just happened to be in the vicinity when the quail took to cover, and was gingerly stepping along in catlike stealthiness when I caught sight of him. He was evidently attracted to a clucking old male on guard, and was sneaking with great care when one of the flock "flushed" very close to him. He sprang for the quail but got only a few feathers in his paws and then I sent him scurrying to the brush with a quail load, at about 60 yards; too light to do more than scare him badly.

Snakes also figure in no trivial way as a menace to the increase of game birds. They are fond of birds' eggs and all ground and brush dwelling forms are subject to attack, the quail numbering among many species which have been recorded in scientific research. So summarizing, after the sportsman has helped himself to the quail supply, is it not remarkable that the word "abundant" can be well applied in describing their numbers. Comparatively speaking, the California quail are the most plentiful of all other land game birds. Though their propagating propensities are greater in the average than other species, the most conspicuous reason for their holding out against such numerous foes is chiefly owing to their superior activity, wariness, and that rare instinct which enables them to hide or escape to safe sheltering brush. Any other nonmigratory game bird, hunted as vigor-

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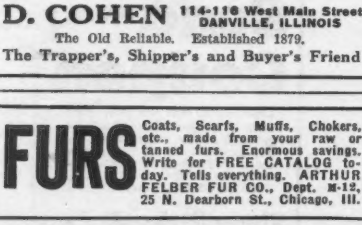

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ously as this species, would have dwindled to sorry numbers by this day of the modern firearm. But as in the case of the Eastern relative, "Bob-White" the quantity is decreasing and unless steps are taken to allow regeneration to take effect, the Nimrods of the future will have only the history of the joys and sport of quail hunting. They shall surely be deprived of these great holidays in the open with gun and dog; all because of our thoughtlessness, selfishness and greed. So I feel it a fitting way in which to close this bit of quail chatter to impress upon you, Mr. Sportsman, the seriousness of the decrease. As I have before mentioned in this article, "Once there were thousands congregated where now a hundred seems a lot." Let us give the birds a chance vote for a smaller bag; forget the limit; or better yet—vote for a closed season. It is easy to effect such a commendable law if there is no opposition. Why, then, oppose? Be a real true sport and do your share that we may never be without the charm of the woods, the call and the whistle of the quail.

TRAPPING THE THREE RIVER ZONE

(*Continued from page* 537)

game conditions. From what he told us there was quite a bit of fur in the country, chiefly lynx, fox, mink, beaver and 'rats, with a number of other furs in lesser quantities. He suggested that we take a trip on up to the Kimberly Lake country, sixteen miles further north, and told us right where we could find a good little cabin that two trappers had built and never used. He not only offered to grubstake us but loaned us quite a number of traps. Once again Dame Fortune had smiled on us.

We went on to Kimberly, or Jackfish Lake and found it to be a good two miles long and over half as wide. After a little trouble we located the cabin in a group of spruce trees. A bear had been inside it but a short time previous to this as his tracks were plainly in evidence on the dirt-strewn plank floor. Being tenderfeet we were somewhat taken aback at this discovery and the first night half expected bruin to pay us a visit and possibly demand entrance. Several times during the "wee small hours" I fancied I could hear something scratching at the door, which I afterward realized was quite probable, as the rabbits were much inclined to do that sort of thing.

I think it was around the 22nd of October that we set out our first traps, placing four of them in likely spots on a beaver dam a half mile around the left side of the lake, where these wilderness engineers had been working on the inlet that fed the lake. The next morning I was detailed to slip down and have a look at the traps while Cy got breakfast. Imagine my excitement when I discovered we had two beavers in the traps! I was sure some proud boy. These beavers were both kitts, a fact of which I was not aware at the time; they weighed probably fifteen pounds

apiece while a full-grown flat-tail will weigh easily four times that.

That afternoon we took the Game Getter and shot 27 'rats, wading out in the shallow places to pick them up as we had no boat and didn't think of building a raft. The next night we got a 'rat in one of the beaver traps and something had eaten it up. Taking another 'rat we placed it in a smaller trap and reset the big one a little to one side. That evening Cy shot a beaver with the Game Getter and it sank. The next morning we were down to the dams before the sun had come up. As we came in view of the spot where we had made the blind we saw a grayish-looking animal, about the size of a coyote, leaping and straining at the trap. At first we thought it a wolf but as we drew nearer we knew that it didn't belong to the dog family.

"A Canadian Lynx!" I ejaculated and Cy nodded his head in the affirmative. It was our first glimpse of the big cat, and so many tales had we heard in connection with the ferocity of these creatures, we were prepared for the thing to fly straight out of the trap into our faces. Approaching cautiously, Cy got within a short distance of the lynx and dispatched him with a well-directed shot between the eyes. In latter years the taking of a lynx has become such a commonplace thing with me that I often wonder how it was possible for me to be so thrilled in this first instance. We were somewhat disappointed as to the size of the lynx, except that he had considerably longer legs he was otherwise scarcely larger than a big Bobcat of the western states.

Going on over to the main dam we were delighted to find the beaver that Cy had shot, floating on the surface. I have shot a large number of beavers in my time and but three of them ever sank below the surface as this one had done. Of these three, everyone eventually floated to the surface. Two of the trio were shot through the head (where the trapper generally shoots them) so I am still puzzled as to the real cause for this.

ALONG in the forepart of November our first little flurry of snow fell. Between Kimberly Lake and the Baptiste we had built another cabin about three-quarters of a mile off the trail at what we called Moose Lake, a body of water about half the size of Kimberly. On my way down to this middle lake I noticed where a fresh moose track crossed the trail. For some inexplicable reason moose were very scarce around there and as we were very anxious to secure one, I took out after the wanderer. I was totally ignorant of the ways of the moose. Time after time I was within a short distance of the big fellow; he seemed to take a delight in just keeping out of sight, and twice I heard him crashing away through the brush.

Late in the afternoon I came across a place that was tracked up like a barnyard, evidently there was a half dozen

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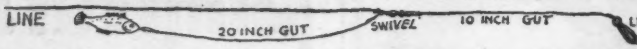

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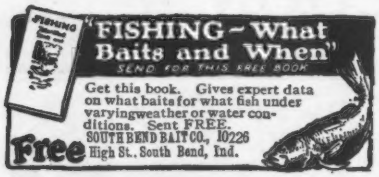

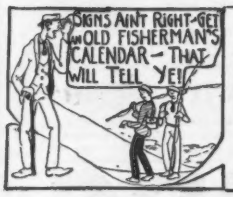

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or so moose thereabouts. Needless to say, I soon lost track of my intended victim in this maze. As it was growing late and I didn't care about camping out, I started east along the course of a little stream which I figured as the Marshhead Creek. I kept on going for what seemed ages and just as I was beginning to give up in despair and camp for the night, I came out on some corduroy just above the Old Mile 70, being then within three miles of camp. It was real dark when I got to Kimberly. Cy was getting uneasy as he had expected me to return that night.

When I related my experience Pard suggested that we both go up the Marshhead the following day after those moose and camp on their trail till we got one. He then casually informed me that he had been chasing a silver fox most of the day. He had been going up the trail toward Mile 70 when he ran square into this dark fox. Hoping that the animal would den up, Cy had tracked him for a number of miles only to give up in despair as the fox never stopped for anything.

The next day we struck out on our moose hunt. After a number of years' experience in hunting this particular animal I now know the ones we were after that time were simply stragglers. They traveled northwest in a fairly straight line and though we traveled as fast as we could we were unable to come near them on the third day. At this point we climbed trees and saw ahead of us a large, deep valley which we figured as the course of the Little Smoky River. Realizing that we were quite a ways from Kimberly and that our grub wouldn't last any length of time, we started to retrace our steps. That night it turned real cold and a blizzard sprang up and although we were in the shelter of heavy spruce we were very miserable from the cold and wet, for the heat of the campfire melted the snow above us and we had no canvas to ward off the drip. When morning came we were cold and stiff. The snow was not deep enough to seriously impede one in walking but sufficient had fallen to obliterate all our own tracks previously made. Here we were, two greenhorns in a strange country, miles from camp and with not even a compass to guide us.

IN looking back over that experience it seems a seven day's wonder that Cy and I weren't lost for we wandered aimlessly in circles all the day and part of the next. Toward noon of the second day, however, we came to a small creek, and although the sun was not shining we thought that this little stream flowed south. After a few moments' consideration we decided to follow its course for we argued that it would either take us back to the Marshhead Creek or into the valley of the Little Smoky. Luck chaperoned us this time and late that night we came to the creek that flows past Mile 70. The following day we made Kimberly.

About this time the grub supply at the Baptiste ran low and Old John said he could let us have but very little more.

He had been daily expecting a large order of groceries through a freighter and when this failed to turn up things began to assume serious proportions. It was then that we got our first taste of real hunger. Already we had been accustomed to eating practically all kinds of wild game. We found the meat of the beaver very palatable, the tail making unusually rich soup. In a large pail we kept rabbits boiling whenever either of us was in camp and there was a real "spread" in sight when we gathered enough fat from next the kidneys of the rabbits to fry one. The hind quarters of muskrats, when fried, were excellent. Perhaps the lowest ebb of our "grub tide" came the day when *we* tried to eat skunk! Somewhere we had read that skunk, if properly prepared, was rather good—I guess we didn't prepare it as we were supposed to, for it tasted a great deal like it smelled.

On the second day of December I left Kimberly Lake for the Baptiste, to see if the freighter had come along yet. On top of Fraser Mountain, some five miles north of the Baptiste, was a small lake just off the trail. On this lake we had a set for fox. As I rounded the last bend in the trail I beheld a black animal struggling in the trap, or at least it looked entirely black at that distance. When I got closer I saw at a glance that the coat, especially back on the hips, was sprinkled with silver gray hairs. I killed the fox, skinned it and cached the fur under a log. Oddly enough I thought the animal a cross fox as I figured that a silver gray should be the same color all over.

Many tales are written that have as their theme the alleged great value of the silver gray fox. Few people, outside of professional trappers and fur dealers, realize what one of these skins is worth to the man who traps the fox that wore it as a coat. I have seen a large number of these skins and have seen them exchange hands at prices ranging from $45.00 to $325.00, the latter figure being far above the average. And yet one constantly hears of "thousand-dollar" foxes and even double that figure! There are hundreds of men going trapping every fall, led on by the single hope of catching just one silver gray fox. Such men are doomed to disappointment. There is, nevertheless, a great fascination in the knowledge that one has a chance to capture one of these truly beautiful animals.

My trip down the Baptiste was a disappointment as far as securing grub was concerned, although Old John generously divided what he had. On the way back to Kimberly I picked up my fox skin and placed it as a surprise deep down in the pack sack. Cy had caught nothing to speak of while I was gone and said he was somewhat discouraged over our prospects. We decided that we would stay until our grub supply was down to the last bit of tea and flour and then hit for Edson, to dispose of our catch and buy a good grubstake.

When Cy took the stuff out of my pack sack he noticed this piece of canvas, in which was wrapped the silver

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fox, at the bottom and naturally unfolded it.

"What the devil have you got here?" he ejaculated, holding the pelt up toward the light. Whereupon followed a discussion as to what kind of fox it was and its probable worth. We figured if it was only a cross fox it would bring perhaps fifty dollars, while if a silver gray we would realize at least eight hundred. We were not long in doubt as to the kind it represented—some fellows by the name of Brown happened along on their way to trapping grounds on the Little Smoky and one of them told us that our skin was a number 1 silver gray. Whereupon our hopes soared heavenward and we immediately made preparations to hit for the outside and secure a good grubstake and additional equipment. Naturally, being greenhorns, we thought it quite probable that we might get another bird of the same color in the same trap!

Our first disappointment came when a fur buyer offered us a hundred and twenty-five dollars for the silver. Naturally we were insulted at such a small offer and Cy was for throwing the fellow into a snowdrift. Old John looked the skin over carefully and told us frankly that we might get two hundred for it.

At Edson we encountered a small army of buyers, each of whom offered disappointingly small amounts for our furs. But that was the least of our troubles—Cy had a letter stating that his mother wasn't expected to live. We sold our entire lot of furs, lynx, minks, foxes, wolves and weasles for a little short of seven hundred dollars and my cousin and I parted sorrowfully. I will admit that the prospect of going back into the wilderness alone was not so alluring as it might have been; you see, I had already tasted some of the disappointments and knew what I was up against.

The first thing I did was to engage a freighter to take a good grubstake up north. The snow was not yet too deep and a man agreed to take my stuff up for five cents a pound. It will readily be seen that such rates made stuff pretty dear by the time it got to my cabin, but I was determined to at least have something to eat! On the way up, it was now along in January, the cold was intense. I afterward learned that it had been seventy below zero and during the warmest part of the day, with the sun shining brightly, the mercury never climbed beyond twenty-five degrees below zero. Every time we crossd an open space I froze my cheeks and the tip of my nose. This in spite of the fact that I hadn't shaved since November and had a wild, scraggly beard to protect my face.

Old John was real glad to see me and he admitted that he had hardly expected either of us back. The old backwoods veteran, accustomed as he was to living alone, admitted that he often grew despondent, due to the effects of so much solitude. I was shortly to realize what real loneliness meant.

(To be continued)

RABBIT SHOOTING GUNS AND LOADS

(*Continued from page* 548)

a hard run after a barking dog. But the results in the appearance of the game are not always as pleasing as they might be.

Number 4 shot, the great favorite of many backwoods boys, will blow a rabbit into a first-class imitation of a quick-lunch "hamburg," if used for rabbit shooting of this type. If we except the very occasional wild, old woods rabbit, which in windy weather often jumps 30 to 40 yards from the hunter; and the incidental shot at a rabbit that a stray dog is chasing, most rabbit shooting of this kind is at ranges of 10 to 25 yards.

A surprisingly high percentage of them occurs when the hunter is floundering around in the middle of a head-high briar patch, when he is dog-tired after a hard drill up a steep and rocky hill, or when he has not seen anything for several hours and is drifting along, thinking of something far removed from the job at hand.

A sudden rush in the leaves, a thump-thump-thump as a white tail bobs away across the field, and the gun roars before the gunner can fully determine what has happened. The result is a rolling ball of fur or an added burst of speed on the part of the snowball.

There may be hunters who can so control themselves as to let the rabbit run just the right distance and then shoot when conditions for doing so are ideal. But few men can think that fast toward the end of a hard day's tramp. That's when the hard-luck tales, the mangled game and the unexplainable misses occur. Things just happen on the instant, or they don't happen, so far as the hunter is concerned, and, consequently, the pattern and shot size should be adapted to such conditions.

A quartering shot on a rabbit in dense brush, and which is within fifteen yards of the hunter, is one of the hardest problems to handle in all field shooting. It requires snap shooting ability of a high order, quick and accurate judgment of the probable course of the rabbit, if it has dodged out of sight, and a *wide* pattern.

If you shoot a full-choke gun under such circumstances, you either retrieve a pair of ears and a few bits of hide, or else mow a nice six-inch path where that rabbit "isn't." After this has happened three or four times in one afternoon, it gets a bit tiresome and discouraging.

The "Brush," "Bush" and "Scatter Load" shells, especially when loaded with No. 7½ chilled shot, are fine for use in choke-bored guns for this type of rabbit shooting, but they are not quite as effective as an improved cylinder or modified choke barrel and the straight quail load of 3 drams or 24 grains and 1⅛ ounces of No. 7½ chilled shot. This charge and combination is, to my mind, the cleanest killing proposition for shooting rabbits at close range—or, in fact, any range up to 35 or 40 yards. In the first place, you've got the pattern, and if the pattern is properly placed the

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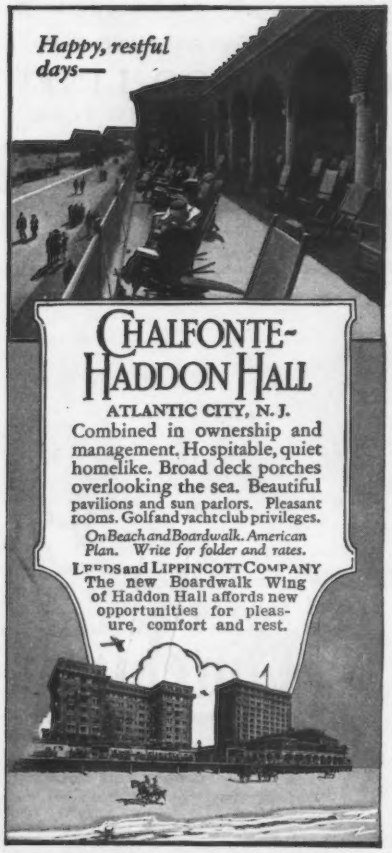

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THE relative patterning qualities of 4's, 6's and 7½'s, chilled, are as follows:

No. ozs. in Load	Shot Size 4	6	7½
⅞	119	195	302
1	136	223	345
1⅛	153	251	388

The patterns of 4's, 6's and 7½'s are in the approximate proportions of 7-11 and 17—almost 1-2 and 3, in fact, which shows why the smaller shot are so much more effective in the more open-bored guns.

A full-choke gun, irrespective of the size of shot it uses, throws a pattern at 5 to 15 yards, that is just about the size of a baseball. Practically you have no pattern.

Few of us could hit rabbits or any other rapidly-moving game by shooting baseballs at them, and it is not hard to visualize the reason why the full-choke gun is unsuited to close-range field shooting. We must have spread of pattern at close range, and we must also have fine shot to get the pattern in an open-bored gun when firing at the longer ranges.

The field gun, therefore, should be light, fast in action, should shoot a wide pattern and be bored for fine shot. The field load should be fast to cut down the lead on sharply-quartering shots; it should be of moderate power to give just the right amount of killing power on the average shot which for rabbits is about 25 yards, and the pattern should be ample for the average field gun.

Rabbit shooting is good sport. Not all rabbits are fools, but the fact that some of them are adds a touch of humor occasionally to a day's field shooting. The big red wood's-rabbits, or the snowshoes, are the "wisecrackers" of the rabbit family—ready to play a trick on a dog or a man most any time. The field rabbits are easier, especially on warm days, but they're all fast enough and tricky enough to fool us all occasionally. There's many a chance thrown away between the first yelp of the beagle and the roast that comes out of the oven.

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(Continued on page 573)

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Market Place (Cont'd from page 572)

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Forest & Stream, 9 East 40th St., New York City. — Victor, Montana. Aug. 12, 1922.

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Sincerely,
(Signed) L. T. HOLLIDAY.

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AN AIREDALE ON GROUSE

JANE WENT ALONG WITH THE SETTERS AND SOON CAUGHT ON TO THE GAME

By GEORGE H. ELY

WHEN up in Northeastern Pennsylvania ten years ago, from a home community where grouse were once plentiful but now extinct, I could scarcely believe that birds could anywhere be found so abundantly. In these mountains during 1920 and 1921 they actually increased, and reports from natives up there now say that there are more than ever. Consider for a minute that Pennsylvania, notorious for its machine politics, has one efficient machine, the State Game Commission. It's up to us to back this department in a continuation of its wise policies, and see that its recommendations are carried out. The increase in game of all kinds is due to limited bags, short open seasons, closing entirely of certain sections for limited periods, to allow natural increase, to help the bought and liberated birds get acclimated, the hunters' license fees that have made available funds for the purchase of stock birds, and the absolute abolishment of market shooting. No matter what niche in life we fill or rattle 'round in, the wild life of the state is worth our attention at the polls and in the woods and fields. If we see that the letter of the law is obeyed, as well as the spirit of sportsmanship, we and our children will see shooting for recreation increase, and the non-shooter have all the song, ornamental and useful birds he wants.

The crowd of hunters in that section of Pennsylvania included farmers, railroaders, bankers and lawyers. Everybody had a gun. Little twenties to big twelves. Six and three-quarter pounds of sixteen is big enough both to kill and carry in this kind of hunting. We had three dogs: a Gordon setter, an English setter and an airedale. Hunting actually started at the borough limits, and one morning we killed a bird twenty minutes from breakfast. No particular kind of cover held game exclusively.

Our first morning out, the first bird rose behind some hemlocks fully fifty yards ahead, with apparently a non-stop pass for the far west. Long, strong flights seemed to be the vogue. Seldom could we surely mark down a grouse and start it a second time. The complimentaries on the first game started, and of course, completely out of range when it cleared the hemlocks, set the dogs crazy. Both setters had to be fanned before they would settle. The airedale told her boss that "her heart was God's little garden," and got away with it.

At the foot of the mountain, the Gordon made his first point by a clump of cedars. His owner walked in and flushed the bird, but a companion on the outside made the shot and killed a cock bird in fine condition. At the same time a chap far out without a dog jumped two and dropped one. The day was clear, with a high wind. The birds were wild and did not lie well to the dogs, most of them rising ahead out of range.

THE next morning was better; cold enough, but no wind—a fine November day. In about ten minutes from the house the guide snapped down a cock

Jane told us it was her job to find grouse and our's to shoot them

that jumped out of a windfall without the dogs warning. The best bird-shot in the crowd missed another that looked easy to the rest of us. This was in light timber. Then for an hour or so we tramped over scrub, waist high, burnt over barrens, scrub oaks high as one's head, just rolling country, and saw no game until we made a swamp, with a high, thin growth. Here we raised three woodcock, killing one. I claim credit absolutely for saving the other two. I think I missed all three, really. There were no grouse in this swamp so we crossed another barren of waist-high stuff and jumped a beautiful doe which cut away over the bush from not more than thirty yards start. On previous trips ten years back we heard constant rumors of deer. This time we saw one or more of both sexes each day.

The black and white setter made a beautiful point. A hen grouse raised about fifteen yards ahead of her and was shot and retrieved in great form. This dog had a great nose and would hold stanch as a granite house, if not too close on the bird. If one kicked off under her nose, away she went on a wild chase, then came back for her licking.

So far Jane the Airedale had just been along. The first day the setters were so wild her owner kept her in very close so she would not interfere with them. At home she had worked ring-necks some without a gun, but as yet had not been working on grouse. She now made game and began to trail, her boss right at the stump of her tail, carefully as though walking on eggs, through the scrub into a bunch of evergreens. The gang followed, begging her in three languages to have a heart and go easy. Where mere man must walk around she slipped through, with only the tinkle of her bell to tell where she was. Then that stopped. We lined up around the clump and called to her to come on. Then the bird buzzed. A chap on the outside killed it.

On order Jane walked in, mouthed the bird gently and told us she knew all the time it was her job to find, and ours to catch 'em. From then on we "left it to Jane." When she made game, we took notice pronto, and gave her a chance to prove out. She could not wind a bird under quite as difficult circumstances as the setters. They occasionally came in and made a point ahead which she respected. She trailed up skulkers, found dead and caught cripples, required no stick work and little wind.

No set rule covers a grouse's action. Some raise way ahead out of sight and sound. Some kick off right under the nose of the dog. Others run ahead to heavy cover, and either fly or wait. There is nothing sure about 'em. One bird in particular played a funny stunt. The English setter came to a point at a clump of dead chestnuts. Her owner called to his partner on the right to walk on, thinking the bird would drive better from that side. It towered up through the clump and not one of us standing in a triangle around the clump got a shot. We marked it down in a swale

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9 E. 40th STREET NEW YORK CITY

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

of Forest and Stream, published monthly at New York, N. Y., for October 1, 1922.

State of New York } ss.
County of New York }

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared T. H. Mearns, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the FOREST AND STREAM and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, Forest and Stream Publishing Co., 9 East 40th St., N. Y. City.

Editor, William Bruette, 9 East 40th St., N. Y. City.

Managing Editor, John P. Holman, 9 East 40th St., N. Y. City.

Business Manager, T. H. Mearns, 9 East 40th St., N. Y. City.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.) Forest and Stream Publishing Co., 9 East 40th St., New York, N. Y.; William Bruette, 9 East 40th St., New York, N. Y.; J. R. Harbeck, 60 Liberty St., New York, N. Y.; Norwood Johnson, Pittsburgh, Pa.; George Bird Grinnell, 238 E. 15th St., New York, N. Y.; Jay Hall, 9 East 40th St., New York, N. Y.; E. L. Parker, Pittsburgh, Pa.

3. That the known bondholders, mortgagees and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

T. H. MEARNS, Business Manager.

Sworn to and subscribed before me this 26th day of Sept., 1922.

[Seal] JEANNE VOLLENHOVEN.
(My commission expires March 30, 1924.)

and followed. The growth was thick and waist-high. Close to a creek bank Jane started trailing. Three of us tagged after. The setter was on the other side of the creek. For a quarter mile we followed that airedale, cautioning her all the time, and finally had about made up our minds that she was spoofing us, when one of the boys saw the bird cut across a clear space under some cedars not more than ten feet ahead of the dog. We closed up expecting it would raise out. Jane went in under while we stood around and waited, and came out at a high creek bank, but no bird raised. Jane said that was the end of the road. I told them I believed that bird hopped off the creek bank and flew across the creek. We couldn't see below the bank because of the brush. The setter man on the other side said: "Didn't. I was coming all the time. I'd a' seen it or a' heard it. That darn Tarry dog lost it."

He brought his setter over, and we all combed that stuff again. No bird. He took the setter back across the creek and killed the bird about twenty yards ahead. It had run a quarter mile just ahead of Jane, then sailed across the creek into some windfall where the setter found it.

WE found grouse in all kinds of cover, and in the open. My first shot was in late afternoon. Jane found a hen bird we had been following under a clump of cedars at the top of a steep knoll. It raised only two feet and flew straight down hill, parallel to the ground. A brown bird so close to brown leaves, in shade, in late afternoon was not easy though a straight-away shot. The next one came over from behind me, on top of a mountain, clear above the tree tops, going fast. Another was found in a bunch of briars, in an open pasture raising into an easy shot. Many tore out through the evergreens and laurels. Everybody could hear them but no one saw one or got a shot.

For a week's recreation this sport is unbeatable by any form of hunting. The mountain air is fine; the tramping hard, but not too strenuous. No matter what your condition on arriving, you will eat three big meals, and sleep all of nine hours after your second day's tramp. The country itself is beautiful. Mountains, hills, valleys with creeks and trout streams full of trout. On our last day out we ate our lunch on the bank of one of these. A fingerling drifted down as we sat there. We offered him bread crumbs which he took. He rose to apple skins but refused the fruit course. An apple core tossed in carelessly drove him under a stump, but in a minute he was back again, as hungry as ever, as much fun as a begging pup. But the most wonderful of all the wild life observed were the grouse themselves. In spite of natural enemies, hawks, owls, foxes, cats, mink, skunks and men, these birds are increasing.

I killed one "varying" hare (snowshoe rabbit), ears were then gray, body a rich vinegar bronze, white underneath, as it was in early November before any snows. Several cottontail rabbits were picked up each day. The country up there is full of both varieties, and it seems strange to me we do not stumble over more of them in a day's hunt. The natives gun for them in preference to birds, as the bag usually contains more meat, for the average shot on rabbit than bird. The best shots are the men who hunt each season and swing and pull from where they stand when the bird jumps. We had with us a trap shooter of excellent local reputation, and years of experience. He has uniformly bad luck at grouse, but in spite of his years he makes the hard trip each season, so great is the fascination of the sport. The worst luck I fear for my vacation is not to be able to spend part of it in the woods of our own state, among the gamest birds in existence.

HOW TO SKIN AND MOUNT A FISH

(*Continued from page* 539)

trout was sent me by Alex Walker, of Butte, Montana, and, to quote his letter in part, he says: "I send you the skin and head, etc., of a six-pound rainbow which I was lucky enough to capture last Sunday in the Big Hole River.

"I caught this fish on a blue quill dry-fly No. 10 hook, using a Halford, 1912, rod, Corona line, a ten and half foot tapered leader. So you see it was caught according to the strictest rules of dry-fly fishing. The fish gave me thirty minutes of real play before he rolled over on his side."

To anglers like myself—who fish our Eastern streams—this shapely fish appears a giant, but this famous river (which I hope soon to visit) contains rainbows up to twenty-two pounds weight, which feed, and I believe are only caught on large-winged helgramites, live and artificial, also on the live muddler minnows

I have just acquired a magnificent 42-pound muscalonge 52 inches long, mounted and set up at Alexander Bay on the St. Lawrence, where it was captured. This particular specimen exactly proves my method of setting up a fish is better. Although stuffed with sawdust (which is perhaps the best they could do with such a monstrous long fish), the fastening of it to the board by a hook upon which the lower jaw rested, then nailed in two places near the tail made the long belly sag down with a considerable bend in the back which to be correct should be perfectly straight. Not only that, the outside jaw, exposed to view was badly pulled inwards to utterly destroy the snake-like litheness of this otherwise wonderfully attractive fish. Before remounting on the painted background board, I removed part of the sawdust, inserted a block of light Balsa wood upon which the entire body skin would rest, then screwed the block on the wood, making the fish perfectly secure, and effectively retaining its natural pose.

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There is possibly no collection of riflemen better qualified to give ammunition the supreme test for accuracy and reliability than the United States Rifle Team which, for the second time, won the World's Championship at Milan, Italy, defeating a field of 1,200 picked shots representing the best marksmen in the world.

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1 General view of the American Firing Point at the International Matches in Milan, Italy, on September 19th. The American team is in action—every one of its members used Western Ammunition exclusively and defeated the picked representatives of seven nations.

2 The victorious American team, photographed in front of Team Headquarters immediately after winning the World's Championship. Top row: Jackson, Wilson, Denny. Middle row: Waller, Osburn, Stokes, Boles. Front row: Lloyd, Fisher.

3 Mr. W. R. Stokes—International Champion—who successfully defended his title this year with Western Ammunition. In addition to winning the World's Individual Championship, he also won the Kneeling Championship with a score of 356. This is a composite of the targets shot by Mr. Stokes.

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Naturally we could not afford to give this broad unconditional guarantee if US Shot-Shells had not long ago proved their fitness.

Made with black waterproof paper and corrugated brass head. Three grades: Ajax, a very high-grade smokeless powder shell with high brass base; Climax, a high-grade smokeless shell with generous brass base; Romax, a high-grade black powder shell.

Use US Shot-Shells. Test them for waterproof qualities, pattern, speed and penetration.

Your money back if they do not measure up.

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The Black Shells